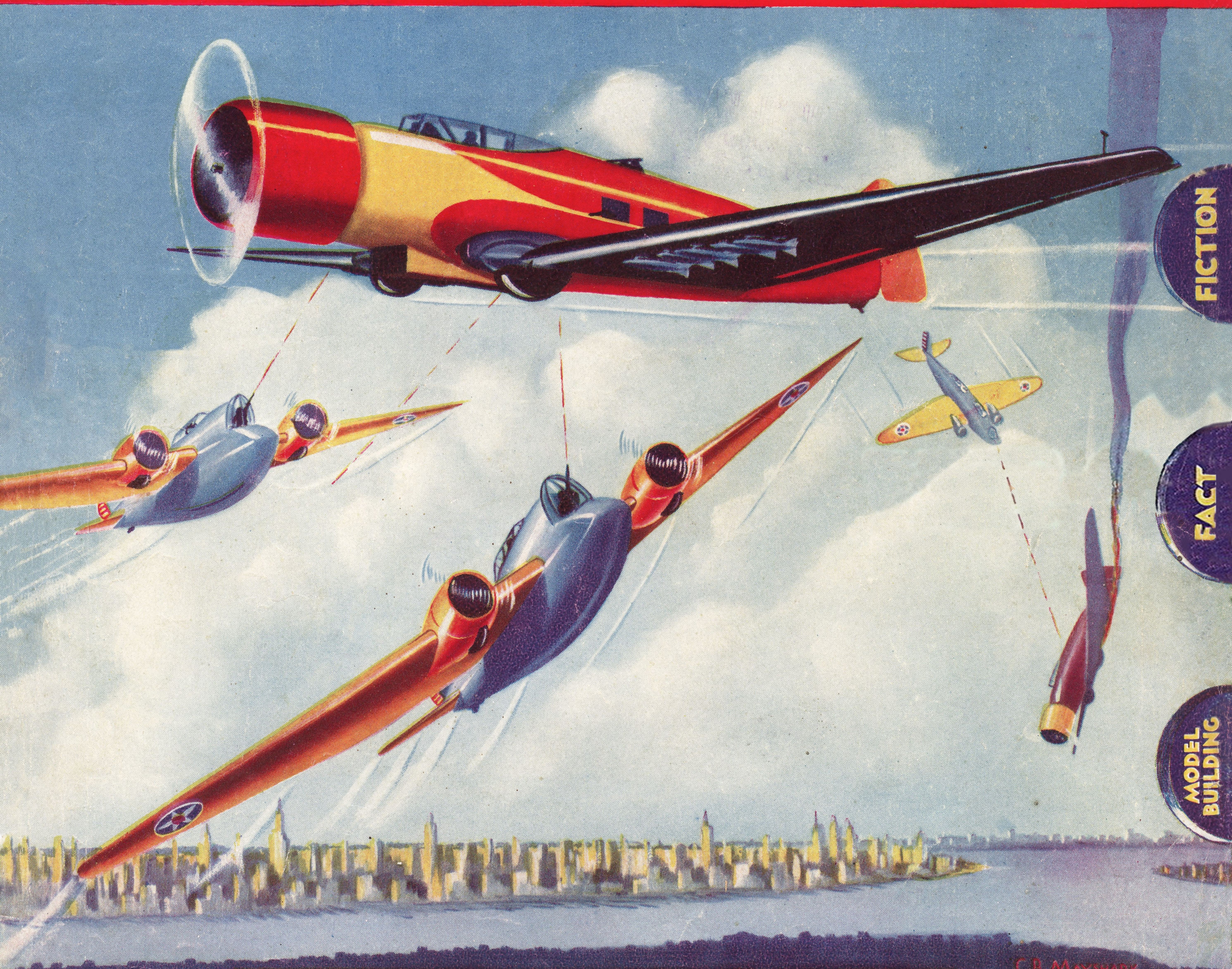




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THRILLING ARTICLES BY WHITEHOUSE, LEWIS AND OTHERS  
COMPLETE MODEL PLANS OF WACO UMF AND DE HAVILLAND 86





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1/32x1/16	35 for .05	1/32 sq. x 25 ft. for	.05
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1/16x1/8	20 for .05	3/32 flat, 15 ft. for	.05
1/16x3/16	15 for .05	1/8 flat, 15 ft. for	.05
1/16x1/4	12 for .05	3/16 flat, 10 ft. for	.05
3/32x3/32	18 for .05	<b>INSIGNIA SHEET</b>	
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1/4 x 3/8	3 for .05	6 ft. for	
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1/2 x 2	2 for .12	4"x6	
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1/16x1/4x11	1 doz. for .07	1 1/2" dia., pr.	
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1/16" dia. x 12"	Per doz. .10	3/8" dia., per pr.	
1/8" dia. x 18"	Per doz. .10	1" dia., per pr.	
3/16" dia. x 18"	Per doz. .15	1 1/2" dia., per pr.	
<b>COLORLESS CEMENT</b>		3" dia., per pr.	
1 oz.	.07	<b>SHEET ALUMINUM</b>	
2 oz.	.15	.002 thick, per sq. ft.	
4 oz.	.22	.005 thick, per sq. ft.	
1 pt.	.60	.010 thick, per sq. ft.	
1 qt.	1.00	<b>ALUMINUM LEAF</b>	

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Thinner same price as clear dope		1/4 O.D., per ft.	
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1 oz.	.07	1 1/2"	20c
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4 oz.	.22	2 1/2"	30c
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(To shine up your colored models)		15" FLYING SCALE	
2 oz.	.14	Model Plans	
4 oz.	.25	Curtiss Robin	
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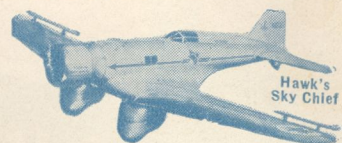
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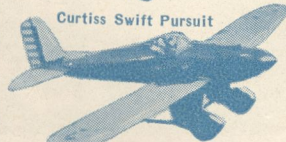
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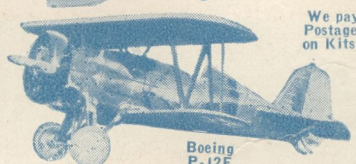
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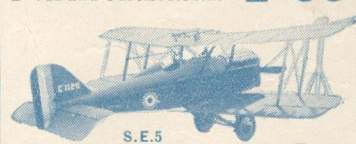
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1 1/2" . . . 9c ea.		5" . . . 9c ea.	
2 1/2" . . . 14c ea.		7" . . . 12c ea.	
<b>3-Bladed Props</b>		<b>Motor Nose Plates</b>	
1 1/2" . . . 10c ea.		For 1 1/2" motor 10c	
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<b>Pursuit Machine Guns</b>		For 3" motor 20c	
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1" Pur. Gun 10c			
1 1/4" Pur. Gun 15c			
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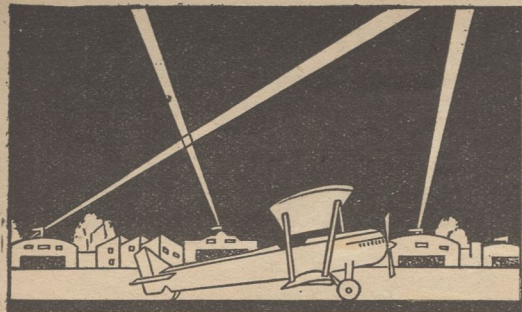
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# FLYING ACES

A.A.WYN, *Editor*

VOLUME XIX

MARCH, 1935

NUMBER 4

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# Raid of the

## GRIPPING "PHILIP STRANGE" MYSTERY NOVEL

By  
**Donald E. Keyhoe**

Author of "Claws of the Hawk,"  
"The Skull Staffel," etc.

\*\*\*

As the Spad nosed down to land, an oddly bitter smile twisted the pilot's lips. Once again, it was time to resume his masquerade—to forget that he was a phantom.

The ship moaned down toward the low-drifting clouds which shadowed the Bois de Morraine. For a moment the setting sun cast its glow on the pilot's face. There was something peculiar about that face. It was as though an older man looked out from behind a youthful mask—a man who had drunk too deeply from the poisonous cup of war.

The pilot's green eyes probed through a gap in the clouds, and caught the familiar gray ribbon of a canal. Swiftly, he erased the bitterness which showed through his altered features. He would have to be careful. There might be men who had known him; down on that French drome. Mere make-up was not enough. He would have to play the rôle mentally as well as physically.

He pulled the throttle as the Spad emerged below the clouds. A thousand feet beneath him was the old red bridge which spanned the winding canal. He banked left to glide to the drome back in the gloomy woods. Then, in sudden amazement, he sat up and stared toward the ground.

All signs of the drome had vanished.

A dazed look came into the pilot's green eyes. He had flown over that field twenty-four hours ago. Then, it had teemed with activity. Now there was not a hangar, a hut or a shop to be seen. Not only that—there before him was absolute evidence that those buildings had never been there.

A rickety windmill stood in the center of what should have been the runway. Near by was a tumble-down shack, with chickens scratching on a dunghill by the door. Cattle grazed listlessly around the clearing, a few gathered about a fodder-pile, where a line of planes should have been. The last rays of the sun were reflected from a plow lying on a wide patch of upturned ground, and there was another peasant shack a hundred feet farther on.



(Illustrated by Eugene M. Frandzen)

Still half-stunned, the pilot glided over the trees to the clearing. It might be some clever camouflage—but it wasn't. More plowed ground loomed up in the fading light. He opened the engine to zoom a shed and a cart with its shafts in the air. A dilapidated fence passed under his wings as he climbed.

The pilot swore. It seemed now that he had made a mistake, but he would have taken an oath that he was over the French drome. He sent the Spad up to five hundred feet, and made a second survey. A queer feeling went through him as he recognized a distinctive twist in the road which bordered the woods.

By Heaven, it *was* the same place! There was the creek which angled across the side-road to the clearing. He swept down over the spot. Yes, there was the side-road itself, almost hidden under the trees. The crude log bridge over the creek was gone. Fallen trees blocked the road on the other side. The junction with the main road, where the Bois de Morraine ended, was artfully covered with brush, so that a passerby would never have seen the branch.

The pilot's green eyes narrowed. It was incredible, but for some reason the French had hastily evacuated the drome and performed that amazing transformation.



# Red Reaper



Guns blasting, they huddled the gap toward the other Breguet, and for an instant the tracer lines of the two ships crossed like flashing swords.

With swift decision, he turned the Spad southwest. Ten minutes later he brought the ship down on an emergency refueling field close to the village of Fièmes. He taxied up beside a lone Nieuport. A *poilu* in faded uniform came out from a tent beside several oil and gasoline drums. "Petrol, *m'sieu*?" he asked as the pilot shut off his engine.

"That depends." The pilot carelessly pulled off his gloves, and stretched his long arms. "How much farther is it to the 9th *Escadrille*?"

He thought the *poilu* controlled a start.

"The 9th, *m'sieu*? I have never heard of it."

"What?" snapped the pilot. "Why, it's within twenty miles of here—somewhere in the Bois de Morraine."

The mechanic stolidly shook his head. "You are mistaken, *m'sieu*. There never has been an airdrome in that woods." Then, as the pilot's green eyes bored into him, he mumbled, "You had better ask for information in the village. There is an officer at the telephone station."

The telephone station was located in the basement of a small brick building. The pilot entered a tiny room partitioned off from the switchboard space. An officer

forward, and peered at the pilot's face, which was now wreathed in a fatuous smile.

"It must have been the voice," he muttered. "I would have sworn—but I see now that there is slight resemblance to the great Strange."

"You mean the bird they used to call the Mental Wonder or something?" The pilot's voice had subtly altered as he spoke, and now it held a nasal tone. He snickered. "Guess I'd have to be a ghost, from what I hear the Boche did to him."

The Frenchman's eyes grew frigid. "You jest at a brave man's death, *monsieur*!" he said sharply.

The pilot gulped. "I—gosh, I didn't mean to."

"You wished information?" the other man coldly inquired.

"Yeah—I mean, yes, sir." The pilot plunged with relief into his subject. "I was to pick up a bunch of code stuff at the 9th *Escadrille*, but the man out at your field didn't seem to know anything about it."

A haunted light flickered in the Frenchman's eyes, then was swiftly gone. "There must have been an error, *monsieur*." The words were measured. "The 9th has

From a war-darkened sky, over a Paris black as the depths of a tomb, a ghastly figure dropped silently down, dangling grotesquely under a black parachute—almost into the cockpit of Philip Strange's ship. Shrouded in mummy-like bandages, the eyeless thing beckoned him down, down to a trail that even the fearless Phantom of G-2 might have refused to follow—if he could have known what horror lay at its end.

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was bent over a desk, writing feverishly by the yellow glow of an oil lamp.

"*Que voulez vous?*" he flung over his shoulder, apparently thinking it one of his men.

The pilot started to answer in French, but thought better of it. "I'd like some information," he said in crisp English. "I'm trying to find—"

He broke off, stepped half into shadow. The Frenchman had spun around, a startled look on his haggard face. "Captain Strange," he whispered. "*Mon Dieu!* I thought you were dead!"

THE PILOT gazed at him blankly. "You've made a mistake, sir. I'm Lieutenant Reid, on courier duty for American G.H.Q."

The Frenchman took a step



never been in this area. You were misinformed."

"But they told me it was in the Morraine woods."

Before the Frenchman could answer, the door to the switchboard room suddenly opened. A man in sergeant's uniform burst into the office.

"Commandant! It has happened again!" The man's mouth snapped shut at the sight of the Spad pilot. He thrust a message into the French officer's hand.

As the officer's black eyes raced over the words, his face paled. He crumpled the paper with an oath, and sprang for the other room. In a minute he returned, snatched up the report he had been writing.

"Send this by telephone code to the Bureau," he snapped at the sergeant. "They will need it if I am delayed."

The sergeant disappeared. The French officer wheeled to face the pilot. "Go back to your headquarters. When you get there, you will find that your orders were a mistake."

Without waiting for a reply, he strode to the outer door. In a moment a motorcycle engine barked outside. The green-eyed man followed in time to see the machine race toward the refueling field. He drew a long breath. It had been a strain, keeping up the pretense after that first shock of recognizing André. He and the fiery little chief of the Deuxième Bureau's air unit had once flown and fought side by side. If he could only have told Andre the truth . . .

But he had told the truth, he thought grimly. For Captain Philip Strange was a ghost—a man officially dead. Only Jordan, the head of G-2, knew that he was actually alive. It was better that way. Too many of his comrades had died in the Germans' murderous search for the hated Brain-Devil. If he came back openly, that slaughter might start anew, and so he had become in truth the phantom ace of G-2.

When he reached the field, André was hurriedly warming the Nieuport's engine. Strange's Hispano was still hot. He took off quickly, soared into the gloom, and flew west at fast cruising speed. André would be heading for Le Bourget, too. To avert suspicion, Strange decided that he had better arrive first and disappear. Paris now offered the only safe means of early contact with Jordan, through the wireless set down in his secret hideout.

The Spad roared into the night. His conscious mind wholly detached from flying, Strange puzzled over the vanished French squadron. What dreadful thing were the French hiding? It must be something horrible to cause that amazing transformation at the drome. He was still weighing possibilities when the Spad slanted down toward the French capital.

He looked ahead, expecting to see the vague, emerald glow of the city's shaded war-lights. To his surprise, Paris lay black as a tomb. He glanced back, and saw the few specks of light which marked Le Raincy. He was certainly on the right course, and the French could hardly have moved Paris as they had the 9th. He glided north, toward Le Bourget. It, too, was shrouded in gloom, a darkness intensified by the starless night. He waited until his estimate indicated that he was over the field, then thundered a signal with the engine.

Nothing happened. He signaled again, and still no landing flares or floodlights showed through the darkness below. Strange frowned. If they were expecting a Gotha raid, there would ordinarily be a hundred searchlights stabbing up from the iron ring of defenses around the city. Still, there was a chance that the sound-rangers had caught the distant drone of approaching raiders, and the gun crews might be waiting to spring a surprise offense all at once.

He idled the Hispano, and prepared for the tricky business of a landing in the dark. Suddenly the roar of another engine sounded above the Spad's lowered drone. He listened intently. It was another Hispano—the ship was probably André's Nieuport.

Strange hit the throttle, and banked toward the First

Defense Field a few miles away. It would bring immediate trouble if he were to show up at Le Bourget just as André landed, especially when something seemed to be wrong below. He circled over the defense drome, and started to descend. Almost at once, a red light flashed hastily on the ground, warning him not to land. Strange swore under his breath. He certainly couldn't stay up there all night.

He jerked around in his pit as a rocket seared its way across the heavens. There was something ominous about that sudden flare in the blackness. The rocket burst above Paris, and hurled out three yellow stars. Hardly had the last star died out, when there came a vivid flash, down in the heart of the city. It grew into a streak of flame, shooting straight as an arrow along the ground.

Strange had zoomed swiftly at first sign of that odd flash. He stared down at the streaking line of flame. A wide avenue had become visible, filled with frantically milling people. The Champs Elysees! That racing arrow of flame was shooting straight down the famous boulevard.

AGAINST the rushing line of fire, he caught a flitting shape. A plane was diving steeply toward the Arc de Triomphe. Strange pitched the Spad after the other ship. That was no Nieuport. It looked like—

He kicked out with an oath. Tracers were lancing close to his wings. As he snapped up and around, he saw gray wings flash beneath him—the wings of André's ship! What the devil did it mean? Then he saw that the Frenchman was not firing at him. The Nieuport was plunging madly after the other plane. Strange jammed the stick down, and the Spad screamed after the French ship.

The suburb of Belleville swam beneath their wings. At furious speed, the two ships charged over the Tuileries Gardens. André's guns were pounding again. Abruptly, the plane in the lead snapped around in a savage chandelle. Guns flared on its cowl. Tracers ripped through the Nieuport's fast-tilting wing.

Strange had set his C.C. gear during that wild dive.

His fingers closed on the stick trips. A black cross loomed before him, distinct in the glare from the ground. He pumped out three short bursts. The Boche ship whirled in a dizzy turn. Spandaus blasted fiercely. Wood flew from a strut in the Spad.

Strange half-rolled, raked the German's tail. The Boche ship pulled up swiftly. For the first time, he had a clear glimpse of it. The plane was an Albatross two-seater, but there was something unusual about its nose. The engine looked larger than the customary Mercedes.

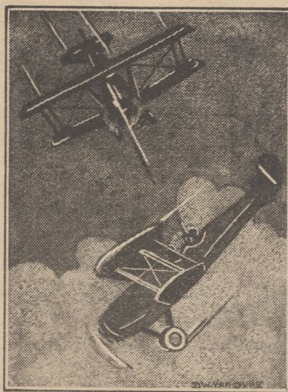
A searchlight leaped up, and struck like a blow between Strange's eyes. Blinded, he kicked out of the beam, frantically trying to see. The Spad jumped under a vicious fusillade. He banked hard to the right, and felt the pound of slugs cease. Above the screech of wings, he heard André's guns join in. His vision began to clear. He slitted his eyes against the glare, and saw the Nieuport sheering madly from under the German's guns.

The French ship seemed to be crippled. Strange snarled as he saw the Boche drive in for his kill. He plunged fiercely, Vickers spurting. The Boche gunner was apparently out; he was huddled down in his pit. Strange charged straight for the two-seater's tail. With a savage joy, he saw his tracers rake up toward the pilot.

The Albatross shrieked into a tight renversement. Strange followed through, guns aflame. He saw the gunner's body jump under a hail of bullets. Something white fluttered up from the pit, streamed back in the wind. Strange kicked away instinctively. Then he saw that it was only a strip of cloth. He ruddered back, but the Boche at the stick had seized that brief advantage.

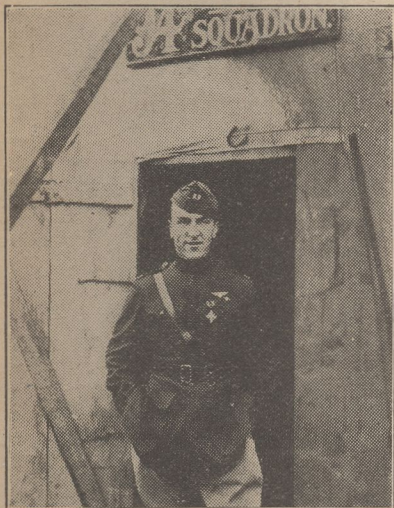
The two-seater whirled in an Immelmann. Strange jerked stick and rudder, but lost at the top of his zoom. The Boche was on him in a twinkling. A torrent of slugs

(Continued on page 48)

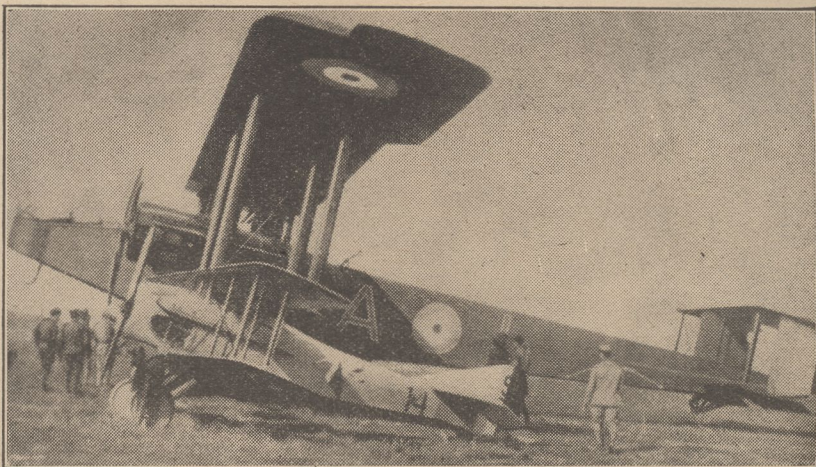




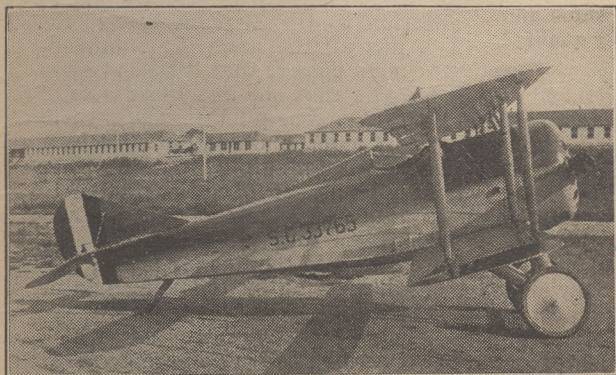
# Snapshots of the War



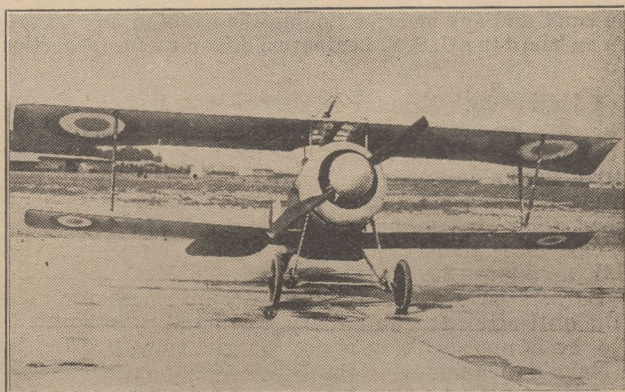
A hero is rewarded! Captain Eddie Rickenbacker shows his new Distinguished Service Cross outside the squadron office after he had been officially decorated in the field. Twelve years later he was awarded the Congressional Medal of Honor.



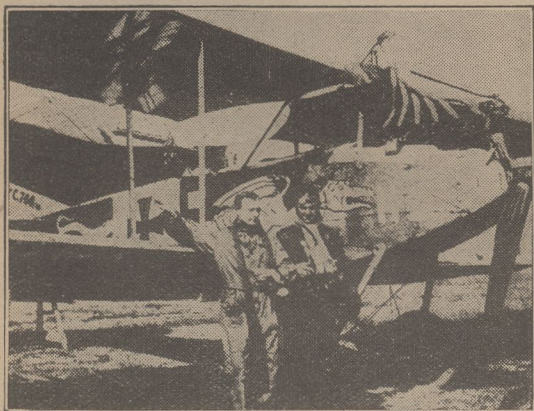
Here's an amazing contrast in the great war. The monstrous 100-foot wing-span Handley Page bomber lines up alongside a little French Spad belonging to the famous Stork squadron. Note the well-known insignia on the side of the pursuit ship.



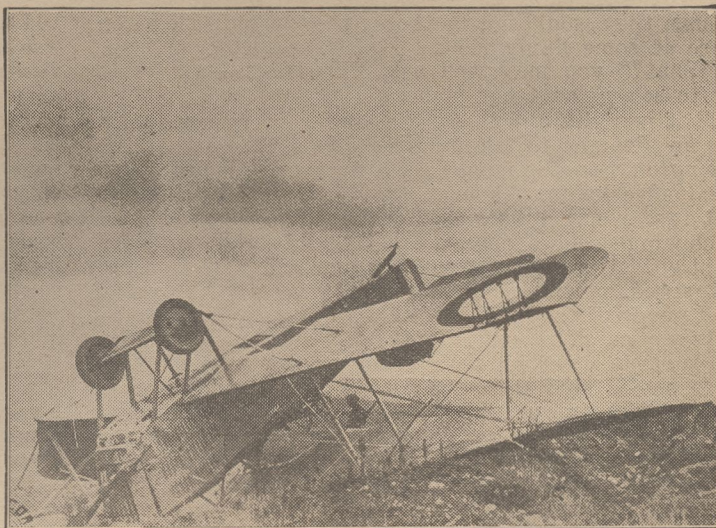
This little-known fighter was turned out by the British late in the war, by the Ordnance Engineering Company. It is known only as the Type "B" and was powered with an 80-h.p. LeRhône engine. Its top speed was 110 m.p.h.



An interesting view of a Nieuport scout, type 17, which was powered with the popular 80-h.p. Le Rhone motor. It was built during 1917, and shows an unusual top gun mounting and a cut-out center-section.



The unfortunate pilot on the left is none other than Erwin Boehme, the German airman who collided with the great Boelcke and caused his death. It is said that after this accident, Boehme tried to commit suicide, so strong was his grief. He was killed later in an air battle. With him is shown his observer, Lademacher, who flew with Boehme when he was a two-seater pilot.



Here's a lucky smash! This American Breguet was shot down from 2,000 feet near Sepsarges, Meuse, on September 17th, 1918. Lieutenants H. A. Dolan and B. D. Woon were the airmen who escaped with only a few scratches.



# A Sea Hawk's View



You can't find any smarter line-up than this in any Navy! Here are ships and men on board the U. S. S. Lexington, drawn up for inspection. Sure, they qualify!

PLAYING  
AT WAR  
WITH THE  
U. S. NAVY!

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By  
**Kenneth Brown  
Collings**

Author of "Raid of the Unseen," etc.

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ture, in your mind's eye, a distance three times as long as a 100-yard dash, or 100 feet more than the height of the Woolworth Building, that will be just about right. That is a big ship or a very small flying field, depending on the way you regard it. The ship's officers—and, in addition to the airplane pilots, the Lex has all the navigating and engineering officers that it takes to run

NINE o'clock Monday morning—two bells by ship's time—and the sailors cast off the lines which tie the giant aircraft carrier to the dock. A swarm of tugs puff alongside; they push and haul, shove her slowly out into the Hudson. They nose her bow about to head down stream, and with a farewell blast of whistles, cast loose their lines. With a shiver of power, the U.S.S. *Lexington* heads to sea.

"'Sara,'" says a ship's officer, standing by our side on the anti-aircraft gun gallery, "will follow us out."

No, he is not speaking about his girl friend. Sara is the Navy's nickname for the U.S.S. *Saratoga*, twin sister of the *Lexington*. And aboard the "Lex"—so called by all who love her—we are now headed for the open Atlantic, to play war games with the fleet.

The airplanes, which are now packed in tight formation on the flight deck, were left aboard in New York so that the people could see them. Under operating conditions, they would not be there; they would still be on shore at some flying field.

"What?" you may well ask, "The *Lexington* would put to sea without her planes?"

That is right, and there is a very good reason for it. For an airplane to take off or land on the deck of the *Lexington*, the ship must have a forward speed of about twenty-five knots. At least, the wind must be blowing that fast over her deck. Of course, if a ten-knot wind is blowing—and she always heads into the wind for flight operations—the Lex need only steam fifteen knots. Her speed, plus that of the wind, gives the necessary head wind for the planes.

As you cannot steam a 33,000-ton ship up to twenty-five knots in a harbor, the airplanes must leave the ship while she is still at sea and fly to some landing field ashore. If they remained aboard, they would be helplessly bound to the deck and entirely useless for military operations until after the *Lexington* sailed again, and regained the open sea. So, normally, the planes base on shore, and rejoin the carrier when it is far enough out to get up the necessary speed.

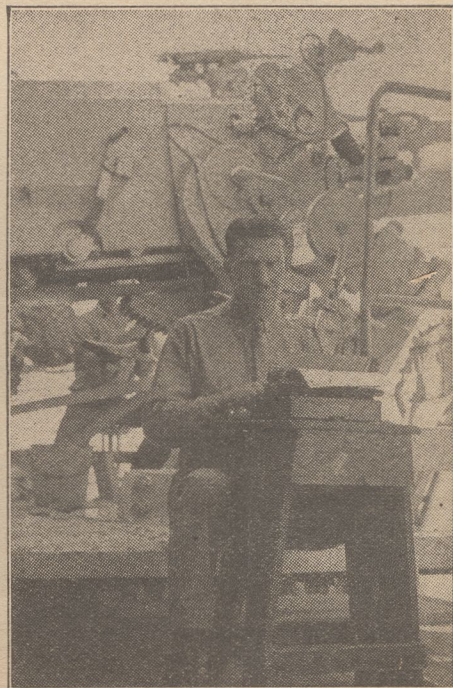
The *Lexington* is 888 feet long, with a beam of 108 feet. Figures are hard to visualize, but if you can pic-

any battleship—will tell you that she and the Sara are the biggest ships in the Navy. The pilots—well, we will land on her flight deck later on, and see for ourselves.

We have passed Ambrose Lightship and are now out at sea. The *Lexington* is being scrubbed from stem to stern. After a short tuning up of their motors, the airplanes also get washed. Then they are rolled onto one of the elevators and dropped into the hangar below. We might as well start our inspection by following one of those planes to the hangar.

But first, let's look briefly at the superstructure, which is amidship, and roughly a third as long as the deck. It

Did we say this was a first-hand view of the war games? This picture of Kenneth Brown Collings, the author of this article, was taken on board the *Lexington*, in the starboard forward anti-aircraft gun gallery. Mr. Collings, who is himself a naval aviator and former transport pilot, was typing this very article when the picture was snapped.





# of the War Games

The war games! Trim row on row, forty Navy planes line up on the flight deck, their brightly colored cocardes flashing in the sunlight. Action! Speed! And with a roar, those ships taxi down the deck and take off—to play at fighting against an enemy in the air. This month we present something unusual and interesting—a first-hand view of the recent Navy war maneuvers, told by a man who was himself on board the *Lexington* during the entire mock engagement.

✱ ✱ ✱

contains the eight-inch gun turrets, the navigating bridge, the fire—meaning guns, not flames—controls, the giant stack, the “Ready Room” where the airplane pilots “stand by” awaiting flights, and the radio shack. All of this is fitted compactly along the starboard side, where it will not interfere with flight operations.

We step on an elevator near the forward turrets. There is a similar lift aft, and when raised, these elevators form an integral part of the flight deck. We sink gently into the cavernous hangar. It is a vast, high-ceilinged, oblong room, without interior bracing of any kind.

“This hangar,” says our guide, confirming our suspicions, “is the largest enclosed space ever built into a ship. It houses the entire seventy-odd planes in the *Lexington*’s complement. When necessary, we can swing a second tier of planes by cables from the top-side.” (Don’t let that word stump you. Top-side is sea-going jargon for roof or ceiling.)

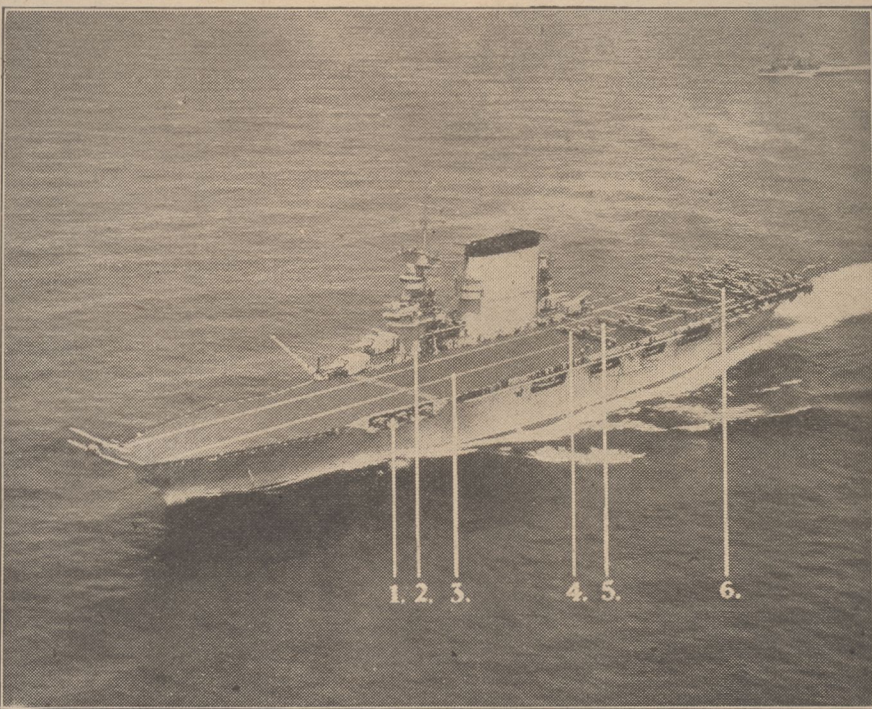
At the hangar level, each plane is rolled from the elevator and lashed in its allotted space. Immediately, a wire is clipped to the steel propeller hub and grounded to the deck. That is to guard against fire caused by static electricity.

Just aft of the hangar are two decks of shops. We pass through motor overhaul, blacksmith, sheet metal, carpenter, paint and erecting shops; also a parachute loft. All the hundred and one adjuncts of a fully equipped airport are here, as well as many shops and tools which you would expect to find only in an aircraft factory.

We climb a ladder—stairs are always ladders to a sailor—and emerge on a deck which runs the entire length of the ship. It is just above the hangar and immediately below the flight deck, and here are located the crew’s galleys and many of the living compartments. As we go forward on our way to lunch, we pass a shoe repair shop, a fully equipped and modern soda fountain, a photographer’s shop, a tailor shop and a U.S. Post office. There are enormous wash rooms to the sides and a laundry below.

“If there is anything you can think of that’s necessary for a normal and comfortable life,” says our guide, “you name it. The old Lex has got it!”

Aboard the aircraft carriers, as on all Navy ships, there are numerous messes. By stern Naval tradition,



Planes taking off from the deck of the U.S.S. *Lexington*. The destroyer in the background is one of two which follow the aircraft carrier to pick up luckless pilots who have mishaps. The numbers indicate the following locations: 1. Anti-aircraft gun gallery and guns. 2. Door to the pilots’ Ready Room. 3. Forward elevator to hangar. 4. Aft elevator to hangar. 5. Approximate point forward of which planes cannot roll in landing. 6. Circle for which pilots shoot in landing. It is in this circle that they try to put their wheels.

the captain eats alone. The senior officers eat in the Ward Room. The junior officers have the J.O. Mess. The Warrant Officers and the Chief Petty Officers have separate messes, and of course, the biggest of all is the crew’s mess. But whether for captain or crew, there is plenty of good food for everyone on the *Lexington*.

Today we eat in the Ward Room, and through the port holes we watch the *Saratoga* and the old *Langley*—first of our experimental carriers—cruising alongside. The Carrier Division is practicing maneuvers. In single file, in staggered column and abreast of each other, the three ships plow through the gently swelling Atlantic with the precision of soldiers on parade.

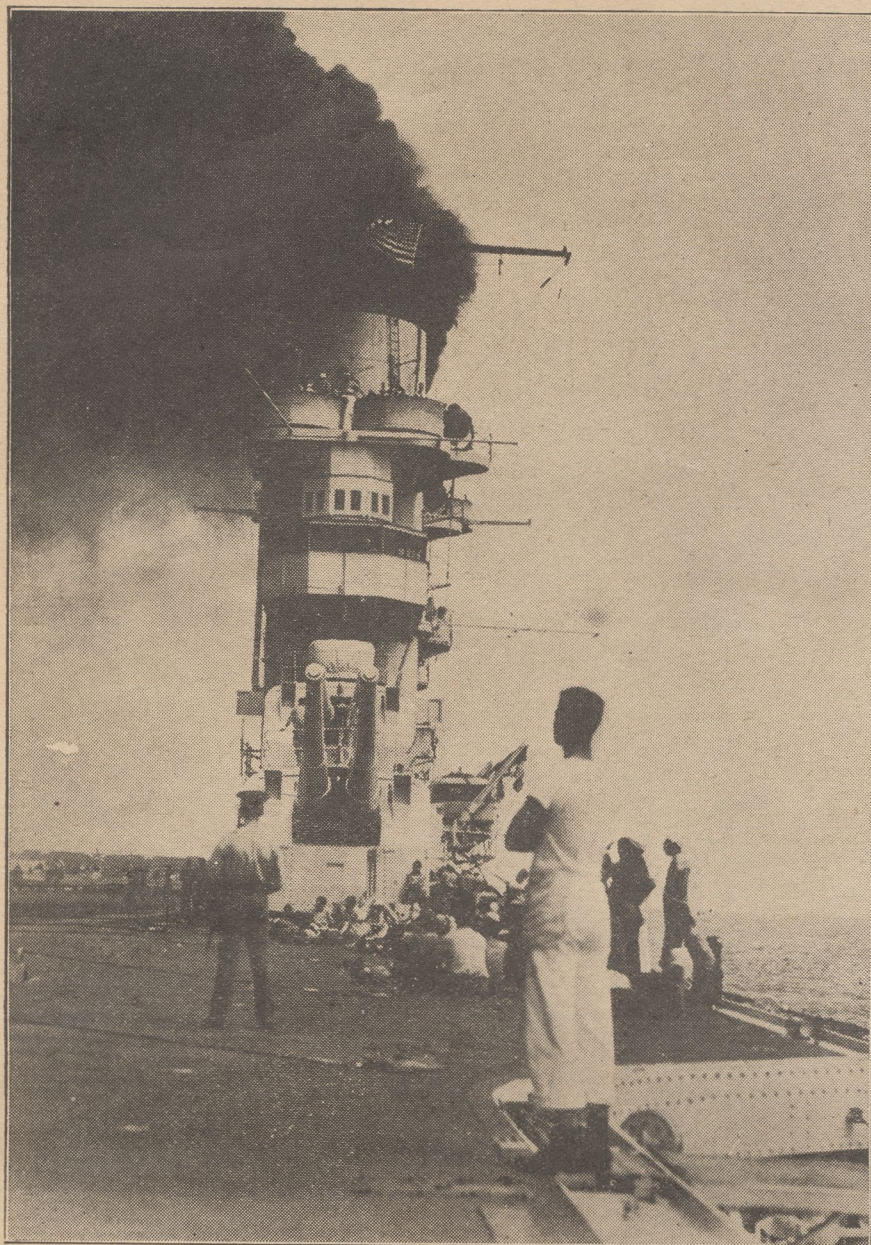
After lunch, we don overalls, for this afternoon we are going into the engine rooms. “You may get greasy,” our engineer guide warns us. “It’s no place to be dressed up.”

Later on, when we emerge from the depths of the ship, we will give him an argument about that. There are grease and oil about, but it is on the machinery, where it belongs. You would have to go out of your way to get dirty.

“A total of sixteen boilers,” says our guide, as we stand in the main control room surrounded by a myriad dials and gauges, “drive eight turbo-alternates. They are so called because they generate alternating current. There are eight motors, two on each of four propeller shafts, and they can deliver upwards of 180,000 horsepower, although we seldom use that much. At slower speeds, we don’t need it. Right now we are doing sixteen knots, and we are using only four boilers, one turbo-alternate and only one of the two tandem motors on each shaft. We alternate in using the various units to equalize the wear.”

In addition to the propelling machinery, there is a whole host of auxiliary engines for lighting, hoisting





No, that ship isn't on fire. That thick, black smoke pouring out is merely a smoke screen to guide lost aviators back to safety on the deck of the *Lexington*. On hazy days at sea, when the visibility is poor, this gigantic smoke screen can be seen for far greater distances than can the aircraft carrier itself.

power and what not. To look at the exterior of the *Lexington*, you would never imagine that in it they could give the lion's share of the interior to the flying equipment, house and feed about 2,000 men, and still have room for all this machinery. Ingenious and compact arrangement, and no wasted space, is the answer to the riddle.

**"FLIGHT QUARTERS!"** Bright and early next morning, the notes of a bugle sound from the loud speakers of the communications system in all parts of the ship. During the night, the entire fleet has joined us. Steaming twenty knots into a five-knot wind, grim battleships, powerful cruisers and racing destroyers stretch in precise formations to the horizon. But the *Saratoga* is missing. That's strange; we must find out why.

War games! The forty planes to be used in this morning's problem are arranged row on row at the stern of the flight deck. Their red, white and blue cocardes, their multi-colored squadron insignias, their yellow and blue tails—mark of the *Lexington's* war birds, those yellow and blue tails, for the *Saratoga's* have red or white, and the *Langley's* green—flash in the bright sunlight. The motors drone as the mechs warm them up.

The flashing propellers have only six inches of clearance from adjoining wings and tails, so closely are they packed.

We crouch in the shadow of the forward turret to keep out of the way. An officer wearing a yellow sweater and helmet raises his hand as a signal. Action! Speed! Movement on the instant! With a roar, the first of the scouting planes taxis down the deck to a point opposite us. It hesitates. Another sailor in yellow drops a blue and white checkered signal flag.

"Give her the gun!"

The pilot shoves his throttle forward. A howl of power from the motor . . . the tail hops into the air . . . the wheels start to roll. A short rush forward along the deck, and the plane surges upward; it banks away to port.

Things happen fast and furiously. The deck is swarming with action and color. Different colors mark different jobs. Repair men wear blue helmets; crew chiefs wear white; red marks the firemen; green spots the men who man the arresting gear when it comes time to land.

Right now the men in yellow are in charge. They are "taxi-men," or plane "spotters." It is their job to get the planes down the deck, put them in position for the take-off, and dispatch them into the air. The pilots have eyes for yellow helmets only. They take orders from the man in yellow.

R-r-r-o-o-a-r-r! Another scout takes the air. Ten seconds interval between take-offs is all. Ten seconds to taxi a plane down the deck, spot it in position, fly it clear of the deck. Ten seconds . . . there goes another . . . ten seconds . . . another!

"Report in the pilots' Ready Room!" yells our flight commander. "I will explain the operation."

Now we find out why the *Saratoga* is missing. Somewhere, between fifty and a hundred miles away, she represents the enemy fleet. It is our job to find and destroy her. And while we attempt her undoing, she will be trying to serve us the same way.

In pairs, our radio-equipped scouts will scour the Atlantic until they locate the Sara.

Then they will report her position to the Lex. One squadron of our fighters and a squadron of torpedo planes will rush to the attack. The other fighting squadron—with which we are to ride—will climb high above the *Lexington* and defend her from raids by the enemy's airplanes.

There is a flurry of activity in the radio room—a bustle of excitement in the Ready Room. *The enemy is located!*

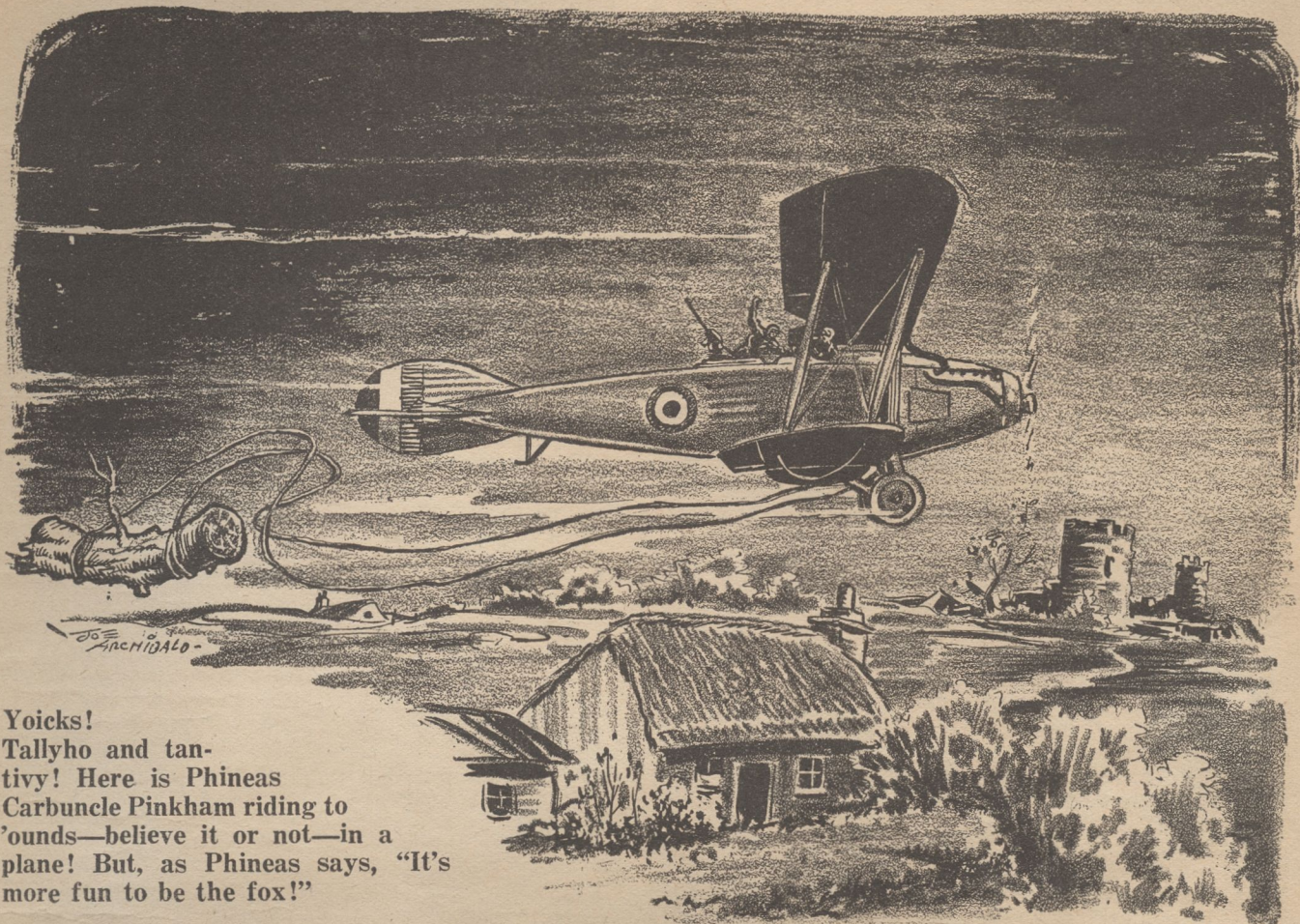
Latitude: 37° 15' North, longitude: 70° 30' West. The pilots of our attacking squadrons jot down the Sara's position. They run for their planes.

In a more leisurely fashion, we make our way aft to the defensive fighters. They are packed so close together that we have to crawl along the deck on our faces and creep under the wings, to dodge the whirling propellers. We scramble aboard, fasten our safety belts. The plane lunges forward to the take-off point. It hesitates. . . .

"Nearest land," reads a blackboard which a sailor holds up for the pilot's scrutiny, "Nantucket. Distance, 200 miles. Direction, 208° true." That is just in case we get lost and can't find the *Lexington*.

(Continued on page 79)





Yoicks!  
Tallyho and tan-  
tivy! Here is Phineas  
Carbuncle Pinkham riding to  
'ounds—believe it or not—in a  
plane! But, as Phineas says, "It's  
more fun to be the fox!"

# Horse Flyers

PHINEAS AT HIS FUNNIEST!

by Joe Archibald

Author of "Crêpe Hangers," "An Itch in Time," etc.

★ ★ ★

IT WAS a strange chain of circumstances that pulled Phineas Pinkham right out of France, towed him across the Channel, and finally deposited him in a very bucolic spot in Merrie England.

It all started because one of the King's brigadier generals got out of a G.H.Q. bus not far from Nancy one night to ask three frowsy-looking Yanks why they were footloose on a Frog country road. After a very unsatisfactory interview with the doughs, who were well fortified with courage that came out of bottles, the brigadier strode back to his means of locomotion, only to have his right of way argued by a nocturnal beastie known as a polecat. The result was very obnoxious to the brigadier, although he had the satisfaction of kicking the animal in the slats.

As the brigadier rode toward Nancy, it became apparent that those who rode with him were going to dump him overside any moment and take the consequences without so much as a qualm. In fact, the brigadier was having a tough time to tolerate his own presence. Finally he called a halt, picked up an extra tin of petrol that was in the bus, and got out. Using the shelter of a tree,

the Brass Hat took off his uniform and skivvies, spread them on the ground and poured the petrol over them generously.

"By gad!" he ejaculated. "That'll jolly well fix things, what?"

The brigadier waited for half an hour. Satisfied, then, that his apparel was dry enough, he dressed himself again and got into the car. As it started rolling, he pulled out a cigar and shoved it between his teeth. He struck a match. Pouf! The Brass Hat squeaked, and yelled for somebody to do something.

"Fire! Fire!" he yowled. "Do somethin', blast it! Cawn't you jolly well see I'm burnin' to a cr—"

A shadowy shape swooped down. It made a sound like a sawmill tumbling out of the sky. It hit the road and headed for the brigadier's bus. The driver shut his eyes, swung the wheel desperately and bit a big hole out of a fence. The car shot a hundred feet and splashed into a canal . . . .

Phineas Pinkham had a hard time pulling the three out of the drink. The colonel, after coughing up what he had swallowed out of the canal, swore at the Boone-



town wonder and questioned his parentage. The brigadier, looking like something that had been yanked out of an incinerator just in time, grabbed at the Pinkham right and shook it heartily.

"Wonderful headwork," he enthused. "I jolly well would have broiled like a chop if you had not acted with such hasty precision. Plane no end banged up, what? I'll see you get another—two—three! Lieutenant—your name, sir?"

"Pinkham," Phineas informed him. "Haw-w-w-w! Well—" The Yankee miracle man was addled, and not from the big bump on his pate. This brigadier had been dumped into the drink and seemed pleased about it, and that did not make sense.

"Name's Stokes-Furness," the Limey Brass Hat went on. "No end of thanks, old chap!"

"H-huh?" gulped Phineas. "You must own the Furness coal in Newcastle, haw-w-w-w!"

"The Furness coal?" repeated the brigadier, scratching his head. "Coals—furnace—yaw-w-w-whaw-w-w-w! Deucedly clever, old chap! You hear that, colonel? Coals in the furnace, what? Yaw-w-whaw-w-w-w!"

"I heard him," growled the colonel. "Ha, ha, ha!"

"Don't laugh yourself to pieces, will ya?" grinned Phineas at the sour-faced one. "Well, I must be goin' to Barley Duck. I was attacked by three Heinies on the way home an'—well, the C.O. will be worried."

"I'll see to it that we get a conveyance, lieutenant," declared the brigadier, pawing at a singed mustache.

"Only a mile or two into Nancy. I'll see that you get to your squadron. Yaw-w-whaw-w-w! Coals in the furnace! Must write that home. Must be jolly to have a sense of humor."

"I'll need one when I get to the squadron," replied Phineas, casting a side glance at the brigadier. "They won't believe I broke up a Spad savin' you as—"

"Oh, they won't, eh?" Stokes-Furness said. "I'll see to that. I'll accompany you—my duty—owe you my life an' all that, what?"

"I didn't say anythin'," said Phineas.

"Yaw-w-w! Coals in the furnaces," gurgled the brigadier. "Bet you're bloomin' well filled up with jokes, eh, lieutenant?"

"Yeah," Phineas came back. "It seems there was two Scotchmen—"

**MAJOR RUFUS GARRITY** sat on the steps of the

stone farmhouse which was headquarters for the Ninth Pursuit Squadron outside of Bar-le-Duc. Captain Howell and Lieutenant Bump Gillis leaned against the side of the house and looked up at the sky.

"Think he'll come back this time?" Howell queried tauntingly.

"I'd hate to think he wouldn't," snapped Garrity. "I'd hate to think he got laid away among the poppies without hearin' the names I have thought up about him. Brand new ones. Run out on formation again, after I warned the crackpot. Don't give a tinker's dam what I say, huh? Oh, you wait, Phineas Pinkham! But it would be just like him to spite me and get himself killed. Wouldn't it, Howell?"

"I would not put a thing past him," replied the flight leader. "He's an awful aggravating ape."

After twenty more minutes of waiting, they saw a car roar onto the drome and make an unearthly noise with dirty brakes as it stopped in front of the Frog farmhouse. Phineas Pinkham alighted and doffed his hat.

"Good evenin', bums!" he said, expansively. "Well, well, it's the major. I hope I'm not keepin' you up."

"Hand me that stone milk crock, Gillis," Garrity ground out. "Now, you lop-eared, spotted-faced son of—"

"Harumph!" came a voice. The brigadier stepped to the ground. "Why, major, such language! I can see that the lieutenant was justified in what he was saying about you on the way out. Hard task master, are you, Major Garrity? Well, this man saved my life—saved me from a horrible death. Cawn't talk to him like that in my presence, Garrity. I'll report you, sir. I'm Brigadier Stokes-Furness, K.C.B., V.C. Lieutenant," he said, turning to Phineas, "coals in the furnace—what? Yaw-w-whaw-w-w-w!"

"Haw-w-w-w-w!" agreed Phineas.

The Old Man got to his feet slowly. He looked dazedly at Howell and Gillis, then at Phineas and the brigadier. He scratched his head, blinked and swallowed his Adam's apple several times before he became articulate.

"H-he said things about me?" Garrity gulped at last. "That ape rippin' me up the back! I'll—by cr-r-r-ipes—"

"Now, Lieutenant Pinkham," the brigadier interrupted, "you said you could put six horses into five stalls. Let me think—what was it now? I got it! You feed 'em radishes, eh? Yaw-w-wha-w-w!"

"No, you make horse radish," Phineas corrected him. "Huh, you catch on easy, don't ya?"

"Now, look here, Pinkham!" roared the C.O., shaking a finger in the Boonetown flyer's face. "The King's Brass Hats can't interfere here and—"

"You make horse radish," Brigadier Stokes-Furness chuckled. "Get it, Garrity? You have five horses an' you cawn't put them in six stalls—"

"Aw, what's the use?" mumbled Phineas. "H'lo, Bump, I—"

"Pinkham, you—"

"I'll answer for Pinkham's delay on reaching his squadron," the brigadier snapped. "Saved my life. See to it that he gets a new ship. I've got influence, Garrity. In Buckingham Palace, too, what? Going to take Lieutenant Pinkham on leave with me, to England. I'll get in touch with your Wing Headquarters, Garrity. No end entertainin', that chap."

"Will you arrange it so I never lay eyes on the fathead again?" howled Garrity. "By golly, sir, I hope all the Kraut Vons he knocked down escape from the British camps an' bump into him on the moors!"

"Garrity, there were two Scotchmen—ever hear it? A jolly good howl, as you Yanks say. It seems Pat an' Mike—"

**ONE WEEK** later, Phineas Pinkham was a full-fledged guest of honor at Stokes-Furness Manor, Hardleigh-on-Tyme, Shuddersfield, Worcestershire, England. Brigadier Stokes-Furness and Lady Furness were entertaining several house guests. It was dinner time when Phineas, resplendent in flying togs, was ushered into the big hall of the Manor. A table groaned with viands. A roast pig, stuffed with chestnuts, was being placed in the center of the table by a flunkey with knee breeches that revealed stout calves. Not far from the pig was a sizzling roast of beef.

"Just in time, Grieves," the brigadier exclaimed. "Take the lieutenant's luggage."

"He is some dog-robber, huh?" remarked Phineas. "Oh, boys, what a make-up!"

"Uh—er—" stuttered the host. "He's the butler, Pink-



"Bomb jour," Phineas greeted them. "Where will I meet my horse?"



ham. He—er—well, shall we eat?"

"Oh, what a mess, huh?" exclaimed Phineas. "What a mess!"

A long-faced woman uttered a little squeak and snapped a lorgnette up to scrutinize the Yank.

"Maybe I should've brought my goggles, too," grinned Phineas.

"Uh—er—he means mess, yes. Er—that is what officers call dinner, don't you know, yaw-w-w-whaw-w-w-w!" the brigadier hastened to explain.

Phineas was introduced to the guests in the best English manner. The wonder from Boonetown, Iowa, caused quite a stir when introduced to Lord Busby-Troutbrooke, M.P.

"Huh?" he grinned at the solemn-faced peer. "Oh, boys, don't brag about it! Once I am in Commercy, an' a M.P. grabs me for drivin' on the wrong side of the street. I says to the bum—"

Lord Troutbrooke swallowed quite a chunk of Yorkshire pudding and was finally brought around by a vigorous tattoo on the small of his back delivered by Lady Crumbleton. It was, perhaps, the most exciting dinner ever partaken of at any English manor. Lady Stokes-Furness had hysterics when she found a very black June bug in her broiled kidneys. Phineas was about to explain that it was made of licorice, when the Duchess of Featherstone squealed and threw both arms around the neck of Lord Busby-Troutbrooke, yelling something about snakes. The M.P. picked up a fork and fenced with a little green snake that somehow had got into the Duchess' watercress. This had almost been smoothed over by the brigadier when Grievess, the butler, intruded upon the festivities, knowing full well that it was very unbutler-like.

"Beggin' your pawdon, sir," he addressed his employer, "I must give you two weeks' notice come Whitsuntide!" Grievess had a cloth over his big proboscis, which was stained with his life's blood. "I opened the lieutenant's bag, sir," he complained, "and somethin' jumped hout an' bashed me, sir. I—"

Brigadier General Stokes-Furness sighed, promised Grievess another shilling or two a month on top of a two weeks' holiday.

When coffee and cigars were served, the ladies retired to the drawing room. The Duke of Featherstone was halfway through his cigar when it exploded with a bang. His *pince-nez* went zooming off his nose and plopped in a gravy bowl.

"Haw-w-w-w!" Phineas guffawed. "It's lucky you have a sense of humor, huh?"

His host swore and eyed a great Norman battle-axe that hung on the wall. The duke was for going back to dear ol' Lunnon immediately. With the duchess' vote, that made it unanimous. The brigadier explained as best he could, and then asked Phineas to give a demonstration of his marvelous talents. It was the one great mistake of the general's career during the entire war.

When the entertainment was over, half the servants had evacuated the Manor. Some had even gone as far as the moors. The duke and duchess had cleared out without any fooling. Lord Busby-Troutbrooke eyed his top hat with a countenance as pale as a red cabbage. In the bottom of the hat were the remains of an omelet.

There was a big hole burned in Lady Stokes-Furness' new rug. Lady Crumbleton had been in a faint since Phineas had taken a horned toad from out of the back of her evening dress. Grievess, the butler, had locked himself in the attic after Phineas stabbed him with a



"I am rather tired of knockin' you bums down," said Phineas.

rubber butcher knife. Sir Franklyn Buckleby, hunter of wild animals and African explorer, retreated after a bass voice started to come right out of the lips of the usually piping Duchess of Featherstone while she was in a faint.

At eleven o'clock, Brigadier General Stokes-Furness and Phineas Pinkham were left alone on the field.

"Some fun, huh?" grinned the jokester. "It ain't half I know."

"Godfrey!" muttered the Brass Hat. "Saved my life, what? I wonder if it was worth it."

"What?" queried Phineas.

"Huntin' in the morning," said the brigadier. "Follow the hounds, Pinkham. You'll enjoy it no end." He lowered his voice and turned his head. "Hope you break your blasted neck."

"Oh, boys!" exclaimed the Yank. "Yoicks, yoicks! A tallyho and a tantivy or two, what? I always wanted to ride a horse. Well, I can't wait—"

Just then the phone rang, and the brigadier snapped it up. Phineas was told later the general's son had rung up. He would fly over in a Bristol in the morning to take part in the chase.

"Some fun, huh?" said Phineas as they took a night-cap before going upstairs. "Haw-w-w-w! 'It hain't the 'eavy 'untin' that 'urts the 'orses' 'oofs—it's the 'ammer, 'ammer, 'ammer on the 'ard 'ighway.' Jolly, what? Pip-pip!"

A voice came from the stair landing, a voice that meant business. "Alford," it snapped, "stop that idiot from yowling at this time of night and come to bed!"

"Yes, my dear," groaned Brigadier Stokes-Furness. "I'll jolly well catch hell when she gets me alone."

"Haw-w-w-w-w!" Phineas laughed. "It's always the way. But if I ever marry a dame, she won't wear the pants. A Pinkham was always master in his own house—well, all except Uncle Filbert, as he was bit by a rabbit when he was six an'—"

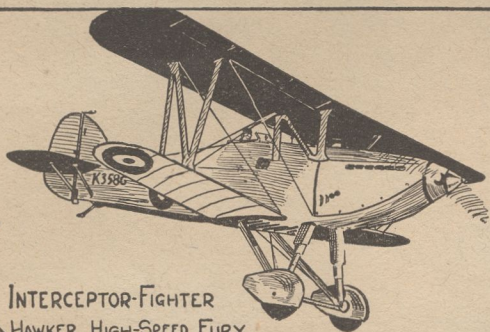
"Good night," growled his host. "You know where your room is. I hope you walk in your sleep, you half-wit, and head for the old well."

"Yoicks!" responded Phineas. "I'll be ready for the hound patrol at dawn." He headed for his room. "Boys, what excitement. I wish there was Heinies gettin' tough over here, though. Well, I will look into a thing or two, as I should mix business with pleasure—oh, ho! A-'untin' I wi-i-l-l-l- go-o-o-o. 'Igh o the merry-o-o, the farmer in the del-l-l-l!"

(Continued on page 68)

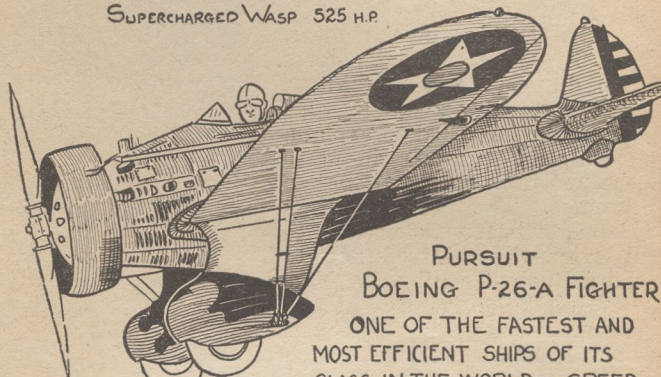


# Fighters of Two Nations

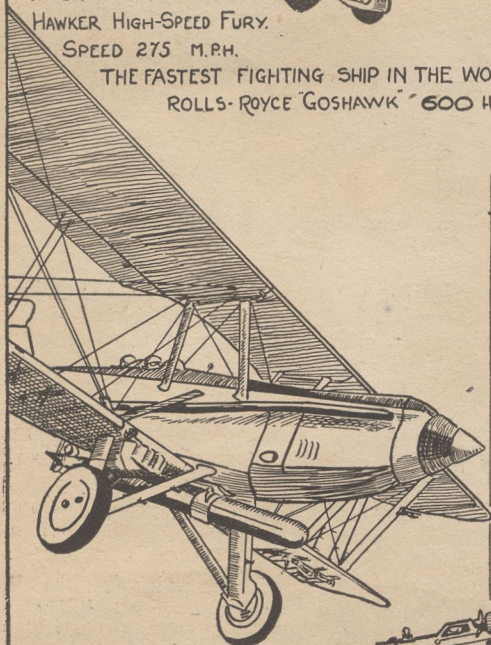


**INTERCEPTOR-FIGHTER**  
HAWKER HIGH-SPEED FURY.  
SPEED 275 M.P.H.  
THE FASTEST FIGHTING SHIP IN THE WORLD.  
ROLLS-ROYCE "GOSHAWK" ~ 600 H.P.

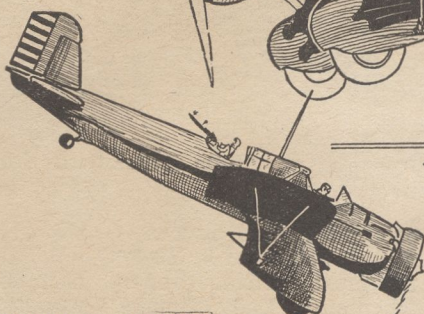
SUPERCHARGED WASP 525 H.P.



**PURSUIT**  
BOEING P-26-A FIGHTER  
ONE OF THE FASTEST AND  
MOST EFFICIENT SHIPS OF ITS  
CLASS IN THE WORLD ~ SPEED,  
235 M.P.H.

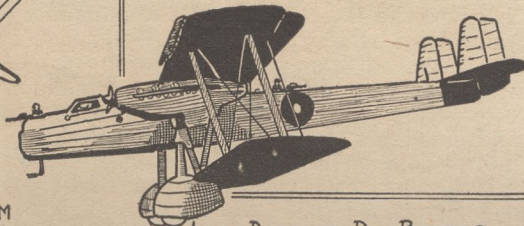


**THE NIGHT BOMBER**  
(BELOW)  
HANDLEY-PAGE "HAYFORD"  
PROBABLY THE FINEST NIGHT-  
BOMBING CRAFT IN ANY AIR SERVICE



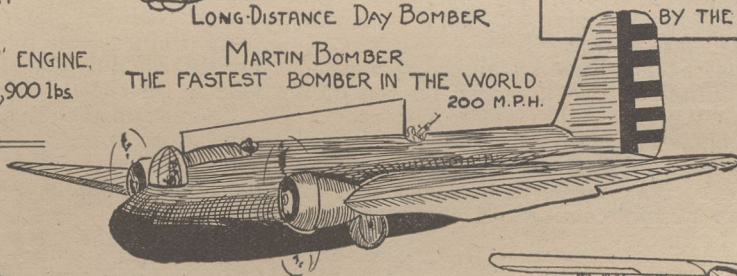
**TWO-SEATER ATTACK**  
CURTISS A-12 "SHRIKE"  
CONSIDERED EQUAL TO AN  
INFANTRY REGIMENT IN  
FIRE POWER.

**TORPEDO BOMBER**  
BLACKBURN "SHARK"  
THE MOST EFFICIENT FLEET-ARM  
SHIP OF ITS TYPE.  
800 H.P. ROLLS-ROYCE "BUZZARD" ENGINE.  
SPEED 160 M.P.H. ~ BOMB LOAD 1,900 lbs.  
RANGE 750 MILES.



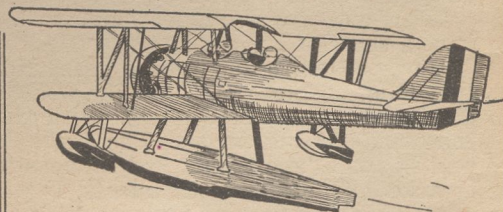
**LONG-DISTANCE Day Bomber**  
MARTIN Bomber  
THE FASTEST BOMBER IN THE WORLD  
200 M.P.H.

**FACT, NOT FANCY.**  
PRESENT CONDITIONS IN THE  
PACIFIC INVOLVING HAWAII, GUAM,  
AND SINGAPORE INDICATE THAT SOME  
DAY THE UNITED STATES AND  
GREAT BRITAIN MAY HAVE TO JOIN  
AIR AND NAVAL FORCES TO ASSURE  
PROTECTION FOR THEIR POSSESSIONS.  
THIS GROUP OF FIGHTING SHIPS, THE  
BEST IN THEIR CLASS SHOWS WHAT A  
POWERFUL AIR-ARM COULD BE ASSEMBLED  
BY THE TWO GREAT POWERS.



**ANTI-SUBMARINE PATROL BOAT**  
BLACKBURN "PERTH"  
THREE 825 ROLLS-ROYCE "BUZZARD" ENGINES.

SPEED  
120 M.P.H.  
CARRIES QF. GUN FIRING  
1½-POUND SHELLS 100-A-MINUTE.



**FLEET FIGHTER SEAPLANE**  
VOUGHT "CORSAIR"  
REMARKABLE ALL-AROUND NAVY  
CATAPULT-LAUNCHED SEAPLANE  
MADE IN SEVERAL TYPES. MANY HAVE  
BEEN PURCHASED BY GREAT BRITAIN.

W.H. WHITEHOUSE



Here are three of the Army Air Corps' most daring flyers. On the left, Lieutenant Fred C. Nelson; center, Lieutenant Norman D. Frost; right, Lieutenant Clarence S. Irvine. In the article below are some thrilling accounts of their courageous exploits in the skies.

Official Photographs, U. S. Army Air Corps



# Outguessing Death

THRILLING TRUE STORY OF THE ARMY'S STUNTERS

By Lieutenant H. Latane Lewis II

Author of "Lighthouse Keepers of the Sky," etc.

**O**N the airport at Nevada, Missouri, a large crowd of people jostled together and craned their necks as they watched an exhibition in honor of the Governor of the state. A thousand feet overhead, an olive-drab observation plane of the 35th Division Air Squadron came roaring across the field. The crowd shivered, and there was a ripple of suppressed gasps as they saw a man without a parachute climb out of the cockpit and make his way uncertainly along the wing of the plane.

As he reached the tip of the wing, he suddenly wavered and lost his balance. His arms flailed the air desperately as he attempted to right himself. Then the wind swept him clear of the ship with merciless force, and he hurtled downward.

Horror-struck spectators covered their eyes. The face of that smiling lad who had been in their midst a few minutes before now haunted them all. But when they next looked upward, they got a big surprise. Dangling at the end of a rope twenty feet below the landing gear of the plane was the airman whose death they had thought they were witnessing.

**Outguessing death—there's a challenge that every Army Air Corps stunt flyer has to face every day! Call it nerve, call it flying temperament, call it skill, if you like—but it is probably a happy combination of all three that enables our stunt flyers to defy death. Here are a few true stories of flyers who hurled that grim challenge—and won.**

It was all just a stunt to give the crowd a thrill. Sergeant R. S. Douglass had tied one end of a rope about himself and had secured the other end to the landing gear of the plane. Of course, he fell only a distance corresponding to the length of the rope, and he had figured on climbing up the rope and getting into the cockpit again. He had knotted the rope at intervals to facilitate his hand-over-hand climb.

Slowly he pulled himself up to the first knot. Here he rested a moment; then he tried to reach the second knot. To his dismay, he found that it was beyond his grasp. Stretching himself as much as possible, he could make only the tips of his fingers touch the knot. Frantically he attempted to get a grip on the bare rope and pull himself up. He struggled until his hands were raw, but to no avail. Exhausted, he fell back to the end of the rope and swung helplessly.

The pilot of the plane shuddered as he realized what would happen when the fast ship landed. Douglass would strike the ground at express-train speed and be dragged to a pulp across the hard surface of the sun-baked field.

(Cont. on page 77)



How would you like to leap off the wing of that plane, even with a parachute? Does that thick bank of fleecy clouds tempt you to jump? Yet that's just what Sergeants Schneider and Burval did over Chanute Field, Illinois, while newsreel men below trained their cameras to catch them coming out of the clouds.



# Hell-Cat Haunt

Night had settled over the Hell-Cat drome, and only the faint, grumbling thunder of distant guns proved that a war was on. Then suddenly the stillness was shattered by a new and eerie sound that seeped through the thin walls of the huts on Buzzards' Row and froze the blood in every Hell-Cat's veins. For that sound was the violin music of an ancient tune that only Fiddlin' Fraser knew—and Fiddlin' Fraser had died two days before!

✱ ✱ ✱

## CHAPTER I

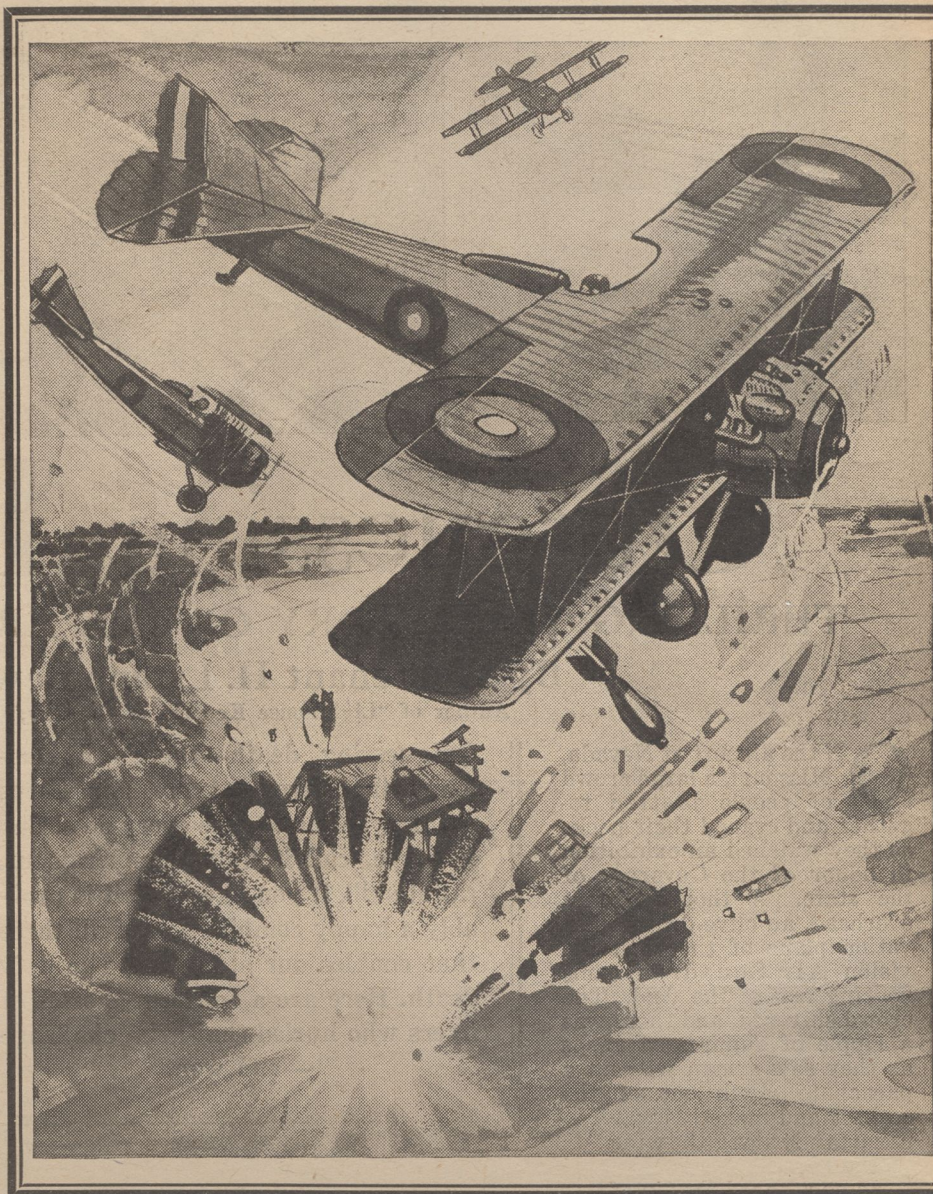
### A DATE WITH JERRY

SOME time during the night, "Fiddlin'" Fraser, newest addition to the hellion brood, spread his wings and mysteriously disappeared from the Hell-Cat nest. No one saw him depart. Not one pilot could offer a word of explanation for his disappearance. Yet, to the last man, the Hell-Cats agreed on one point—Fraser had not deserted. They were sure of that, for Fraser was not the type to show the white feather and fly over the horizon because the war and things in general were getting tougher each succeeding day. From the beginning, he had proved to his squadron mates' satisfaction that he possessed everything it took to make a good Hell-Cat—and those things were courage, character, and the ability to stickmaul a crate through the ether.

Koslov, veteran Hell-Cat and occupant of the cubicle adjoining Fraser's, was first to discover the youngster's absence from the drome. A faint, scraping sound on the rough flooring of the Nissen hut had awakened the light-sleeping Koslov. Annoyed, he reached for his briquet and struck fire. Blinking in the uncertain glow of the flickering flame, he soon located the source of the noise, and swung out from beneath his warm blankets.

Quickly he crossed the floor and picked up the crawling night marauder—a tiny tortoise that belonged to Fraser, and had been the youngster's pet and mascot. It was known to every buzzard in the Hell-Cat brood that wherever Fraser went, there, also, went Speedy, the turtle. By day it rode in his flying coat pocket; at night it was carefully deposited in a roomy box so that it could not roam away.

Koslov's annoyance faded when he recognized the intruder. "How did you get in here?" he mused aloud. A glance showed him that the cubicle door was still closed, as he himself had left it. He extinguished the



*Illustrated by Eugene M. Frandzen*

briquet, dragged a blanket off the cot and wrapped it around his chilled shoulders.

"Let's go, Speedy," he growled. "I'm going to wake up that master of yours and ask him what's the big idea."

A few seconds later, Koslov barged into Fraser's cubicle and approached the cot. His groping hand encountered only blankets. The cot was empty. Puzzled, the big pilot turned and pushed open the door to admit the first gray light of the coming dawn.

A closer inspection of the empty cot revealed a wide, dark stain on the mattress cover. Koslov's fingers trembled as they touched the spot, and jerked back, stained, in turn, with a wet, sticky substance. Blood! Fiddlin' Fraser's blood!

Koslov's steel nerves did not fail him. He pulled himself together, located the candle on the packing case table and lighted it. Blood spots marked the floor. Like an automaton, the Hell-Cat followed the gruesome trail to the door and out onto the duckwalk, where it ended. For a moment he stood there, then jumped down onto the cuppy tarmac and sped away in the direction of Wing. For this was a problem that called for Colonel



# GRIPPING HELL-CAT MYSTERY NOVEL

By Alexis Rossoff

Author of "Hell-Cat Horror," "Recruits for Hell," etc.



Green flame danced on the muzzles of twin Vickers as that thundering detonation roared up from below. Koslov had scored a direct hit!

Mike Hilton's keen mind and logical reasoning. If there had been a tragedy, Koslov knew that Iron Mike, the Hell-Cats' famous Old Man, was best qualified to handle it.

Breathing hard, Koslov stopped in front of Wing and began an insistent rapping on the door with his knuckles. "Colonel Hilton," he called softly. "This is Koslov. Something has happened."

Once again he repeated the call before a brusque voice bade him enter. Koslov lost little time. He strode into the room, to find the Old Man already sitting up on his cot, groping to make a light. Although only a moment removed from sleep, old Iron Mike appeared as he always did—the leader of men.

His deep-set, gray eyes, surprisingly clear and piercing, studied the agitated figure before him. "Shoot, captain," he calmly commanded. "Get it off your chest."

Steadied by his influence, Koslov told the story, beginning with Speedy, the tortoise, which he still carried in his hand, and ending up with the discovery of the blood-soaked mattress in Fraser's empty cubicle. As

Koslov told the story, the Old Man dressed, and was stamping himself into his boots when Koslov ended by asking, "What do you think has happened, sir?"

Iron Mike smiled wearily. "I'm not thinking until I've had a look at Fraser's room," he said, and clapping on his cap, he picked up an electric torch and moved toward the door.

ABSORBED with his own troubled thoughts, Koslov followed in silence. Arriving at Buzzards' Row, the two walked straight to Fraser's cubicle and entered. Deliberately the Old Man closed the door and snapped on his hand torch. In the cold beam of light, the pool of drying blood on the mattress stood out like a gaping wound—mocking them, challenging them to guess its origin.

"Looks as though murder has been done," Koslov gasped.

Iron Mike refused to admit it—yet. "Not necessarily," he parried. "Fraser might have been taken with a nosebleed while sleeping, and gotten up to walk around the drome until it stopped."

The skipper took hold of the rumpled blankets with his free hand and tried to straighten them out on the cot. Koslov heard a low cry escape him as he bent forward to stare at a cleaned cut in the top blanket. Iron Mike's strong, probing hand examined the tear, and a tentative finger went into the hole and continued on through identical cuts in the remaining bed covers. The Old Man looked up.

"A knife did that," he announced tersely. "A knife driven by an assassin's hand."

Koslov stirred. "Then it is murder, sir," he said.

"When we find a corpse, it will be," Iron Mike grimly insisted. "But until that time, Fraser is merely absent without leave."

With a final jerk, the light beam left the cot and swept around the thin walls of the cubicle. The vanished Hell-Cat's spare belongings still hung in their accustomed places. There were his extra uniform and cap, flying togs and musette bag. Only one peg was empty in the long row. Koslov's gaze lingered on it. Something familiar used to hang there, he suddenly remembered—Fraser's cherished violin, in its battered leather case.

"Anything missing, captain?" Iron Mike, standing at his elbow, inquired.

Koslov started. "Yes, sir," he said. "The kid's fiddle." The Old Man's eyes narrowed, and his fingers worried his short, clipped mustache for a moment. "Funny that the fiddle, of all things, should be missing," he finally commented.

The big Hell-Cat nodded. "Damned funny!" he agreed. Suddenly from out on the tarmac came the first sputtering cough of a cold engine, announcing that another



day in the war was at hand for the Hell-Cats.

Listening to the mechanical clatter, the skipper gave voice to a sudden decision. "The Morning Glories will be going up on patrol in a few minutes," he said slowly. "There's no sense in filling their heads with fresh worry, so you and I won't make any announcement of Fraser's disappearance until they return."

Koslov led the way to the door. "Very well, sir," he agreed, and they separated.

The big Hell-Cat turned into his own cubicle, to don his flying togs. He, too, was scheduled to hit the blue with the Dawn Patrol. As he dressed, his thoughts were all of the mystery. Try as he might, he could hit upon no reason for a murderous attack on young Fraser. The lad possessed a likable, easy-going disposition that had kept him out of the arguments and petty brawls that were forever springing up among the high-strung, overworked Hell-Cats. He was good-natured, too, and when asked, would always oblige with an impromptu violin concert. To use his own modest words, "He didn't play good, but he did play loud."

Only one Hell-Cat had ever objected to the youngster's music, and that was Keefer, the saturnine, war-hardened Operations Officer. Keefer had disapproved of Fraser's playing a German folk song one evening. "We don't want anything German on this drome," he had snarled. The youngster had smiled sheepishly and answered, "Sorry, Keefer. No offense was intended. Only a musician of long training or a man with Bavarian blood would have recognized the tune as being of German origin." Keefer had scowled and left the recreation room without another word.

Out on the duckwalk, some one called Koslov's name. "Come on, you goldbrick, shake a leg," the sarcastic voice of Pat Ryan, Hell-Cat patrol leader, yelled. "You've got a date with Jerry this morning, whether you like it or not."

Koslov grabbed for his helmet and goggles; then, as an added thought, he picked up Speedy, the tortoise, and dropped him into his roomy jacket pocket. A moment later, he and Ryan were walking toward the mess hall.

"What did you do—oversleep?" the patrol leader asked.

"No," Koslov answered truthfully. "Something crawling on the floor kept me awake most of the night."

Ryan chuckled. "That's better than having things crawling on you," he reminded Koslov. "Think of the doughboys up in the trenches."

But Koslov was given no time to think, for as his foot swung forward in its next stride, a thundering explosion some distance behind them hurled both Hell-Cats flat on their faces in the mud. Koslov recovered first. Like a drunken man, he lurched to his feet and staggered off in a crazy circle.

"Pat!" he called dully.

Ryan was beside him in a second, white and badly shaken. "What was that?" he croaked.

Koslov halted and pointed. "Look!"

Where Buzzards' Row had only a moment before stood was now a leaping curtain of flame. Men called to each other shrilly through the morning mists. Running figures came rushing out of the near-by mess hall. An agonized scream raised itself above the roar of the fire.

Koslov groaned. "Let's go, Pat," he whispered jerkily. "We're needed back there."

UNMINDFUL of the falling débris that rained down in a steady bombardment, the two Hell-Cats cut straight for the fire. As they neared the ruins of Buzzards' Row, the heat became unbearable. Calling to Ryan to follow, Koslov led the way around to windward of the holocaust and, snatching a fire extinguisher from a badly rattled mechanic, worked his way in close to the first of a half-dozen cubicles that had miraculously withstood the full impact of the terrific blast. He kicked

in the door with a vicious blow. The room was empty. The second and third were the same, but grimly they kept on. Their flying togs were smouldering in many places as they charged forward to the last Nissen hut in the row.

Koslov was groping for the door when it swung open with a sudden force that almost upset him. A smoke-blackened scarecrow of a man, carrying the body of another, came stumbling out. Koslov caught hold of the pilot's arm and guided him into the clear with his burden. For the first time he recognized the man as Keefer, the Operations Officer. Between them, they gently lowered his burden to the ground and bent over the still form. Keefer looked away, and Koslov himself gasped with horror at the sight. For Keefer had risked his life to save a dead man—a man burned beyond recognition.

Other pilots came over to look, but Koslov quickly removed his leather coat and covered the corpse. Keefer stood a few paces away, muttering, "Poor devil!" Koslov looked around.

"Know who he is?" he asked.

The taciturn ground officer hesitated. "I think it is young Fraser," he slowly answered. "I thought at first that it might be you, from the location of the cubicle."

Koslov caught his breath, and remained silent. For some mysterious reason, he felt that the dead man was not Fiddlin' Fraser.

The meat wagon rolled to a stop near by, and Doc Martin, the Hell-Cat sawbones, trotted forward to lift the covering and look at the corpse. After a moment he looked up sadly. "Two others, beside this one," he announced. "They were literally blown to pieces by the explosion."

"What caused it, Doc?" Koslov asked.

"Can't say, definitely, but Colonel Hilton thinks that a lone German flying with a dead engine sailed low over the drome and laid an iron egg on us."

Keefer had been listening. "I'm inclined to agree with him," he said. "There was a mighty low scud blanket hanging overhead a few minutes back, and with the racket our own ships made, warming up on the tarmac, it was a cinch for a Jerry raider to sneak in."

Two enlisted men had by this time lifted the body from the ground and were walking with it toward the waiting ambulance. As he started to follow, Doc Martin chanced to look back at Keefer, and saw that the man was badly scorched. "Come on, ride over to the infirmary with us," he suggested.

"No, thanks," Keefer stoically replied. "The dead have earned their ride. I'll walk, if it's all the same to you."

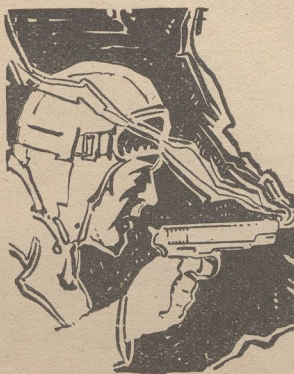
But now the shrill note of Iron Mike's whistle summoned the Morning Glories of the Dawn Patrol around him. Calm, even in the face of catastrophe, he gave them their instructions. "There's a war going on, men, and it's far more important than this fire," he reminded them. A tired smile lighted his face for a moment. "But if you should happen to meet up with a flock of Jerries, give 'em hell. Let 'em know that it's bad business to lay an egg on the Hell-Cats' nest. Carry on, now, and good luck."

The Morning Glories saluted and hurried off to their waiting ships. No questions were asked, and no quarter would be given—to the Germans.

Still thinking of Fiddlin' Fraser, Koslov clambered up into the cockpit of his ticking Spad and settled himself. The first rays of a thin, brassy sun pierced the smoke pall that hung over the drome as his eyes traveled to the center of the line and saw Pat Ryan's arm pump up and down in the old "get going" signal. Obeyingly, he eased power to his engine. The Dawn Patrol was rolling. The Morning Glories were going places—seven vengeful Hell-Cats on the prowl!

Koslov looked back and down at the blazing ruins of Buzzards' Row. Still no craving for a tail tangle with

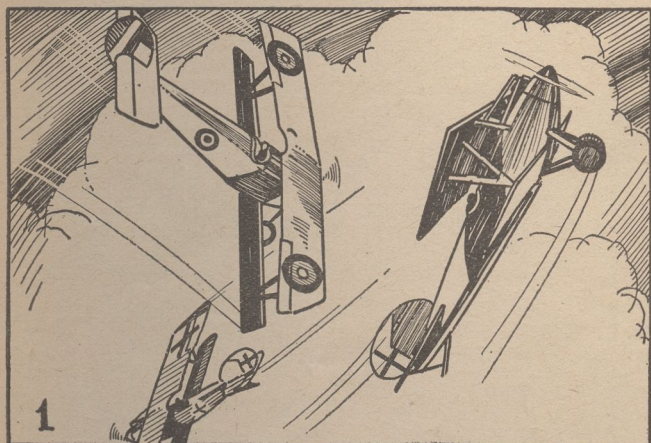
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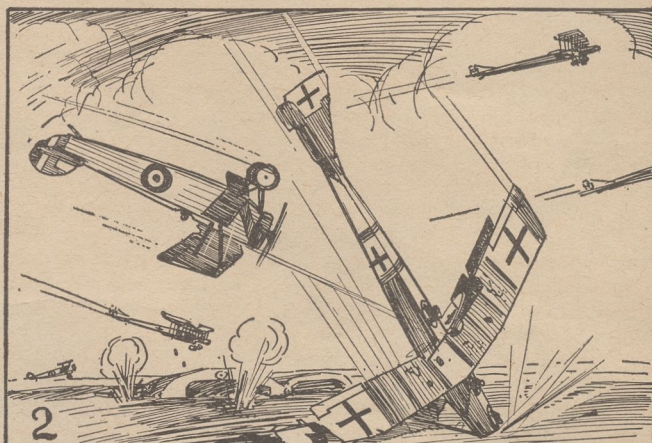


# Lives of the Aces in Pictures

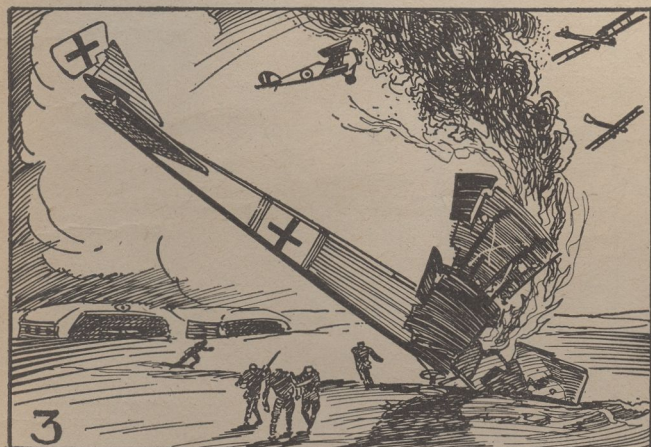
## XXXIII—Lieut. Scaroni, First-Ranking Living Italian Ace



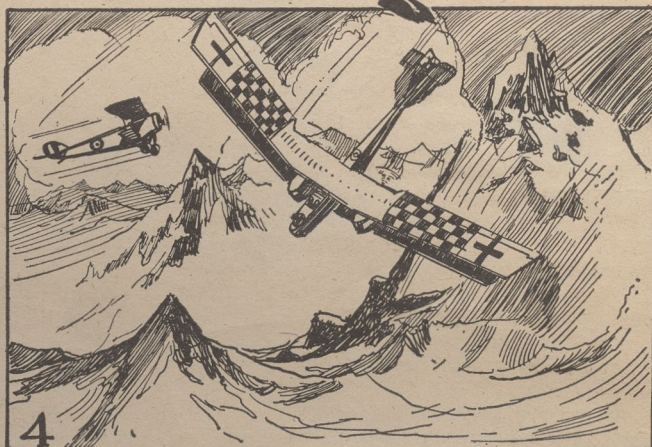
1—Lieutenant Scaroni entered aviation at the beginning of the war, but he spent two years in the service with bombardment and reconnaissance squadrons. Upon his transfer to a fighting squadron, he won his first victory in Nov., 1917, when he downed in flames one of two two-seaters which had attacked him.



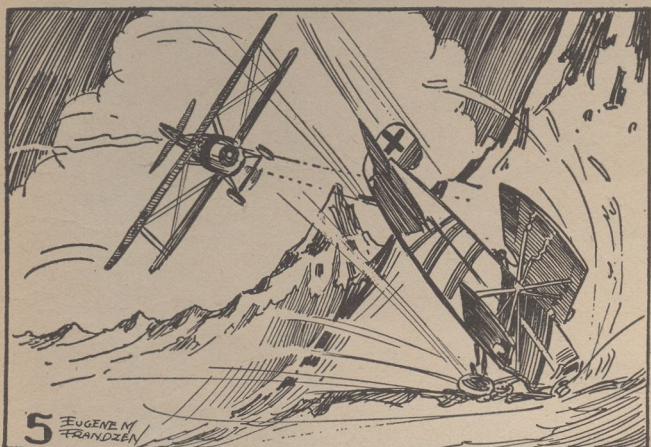
2—On Dec. 26, 1917, a squadron of Austrian planes came boldly overhead to bomb Scaroni's drome. Scaroni took off in the face of their great numbers. He dived on one in a group of ten planes and forced the Austrian down just as he was intent on releasing more of his bombs.



3—Scaroni had hardly seen his opponent crack up in flames when he climbed after another machine. Scaroni maneuvered to keep behind the tail of his enemy until he got in an effective burst. The observer of the crashed plane jumped out and set the plane afire before he was made a prisoner.



4—The same day, the Austrian raiders attempted a second bombing expedition on the Italian drome. Warned in advance, the Italians flew to meet the invaders, who began to turn when they saw the attacking force. Scaroni followed one of the large Austrian machines, however, and his quick fire forced it down in a nose dive.



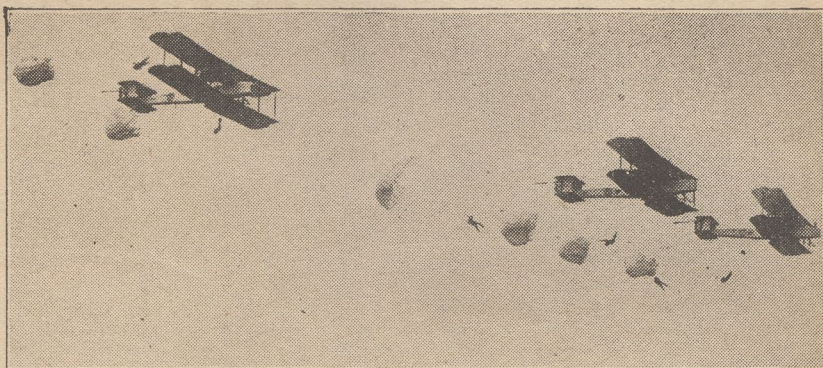
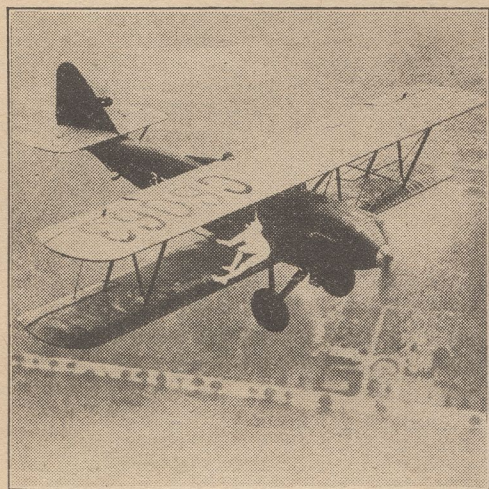
5—The Italian flying forces had a very serious problem with which to contend. It was the Alps—a more formidable foe than enemy guns to airmen in need of landing fields. Scaroni met the test of both when he crashed an Austrian ship under these most difficult conditions.



6—Silvio Scaroni was born at Brescia, Italy. His three-in-one-day victories helped his fine score of thirteen downed in less than three months, a record unsurpassed by other Italian airmen. Despite the loss of two years' time in observation work, Scaroni became Italy's highest ranking ace after Major Baracca's death.

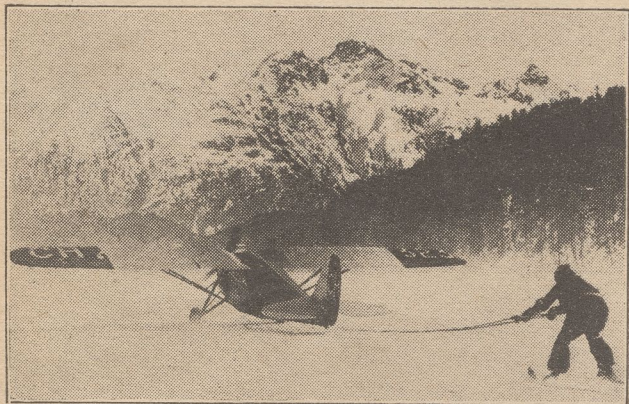


# Stunting in the Skies

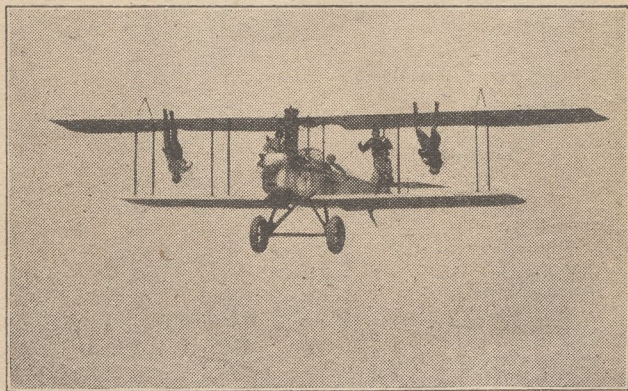


Above:—A remarkable action picture showing six airmen leaping from three planes during an R.A.F. air pageant in England. They stood on small platforms built at the base of the outer wing struts, and were pulled off.

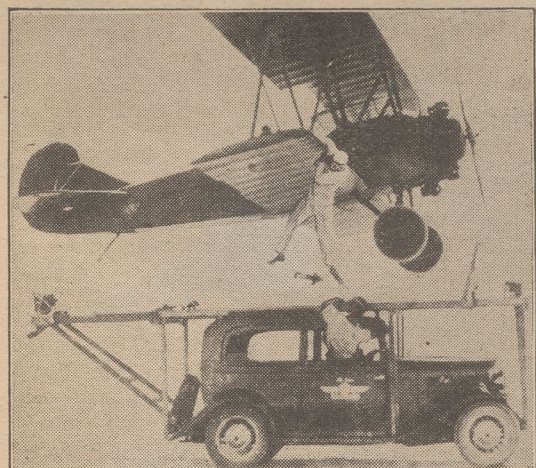
Left:—Bonda Strolarska, a girl wing-walker, doing her stuff over Roosevelt Field. She hangs by one foot from the strut of a ship.



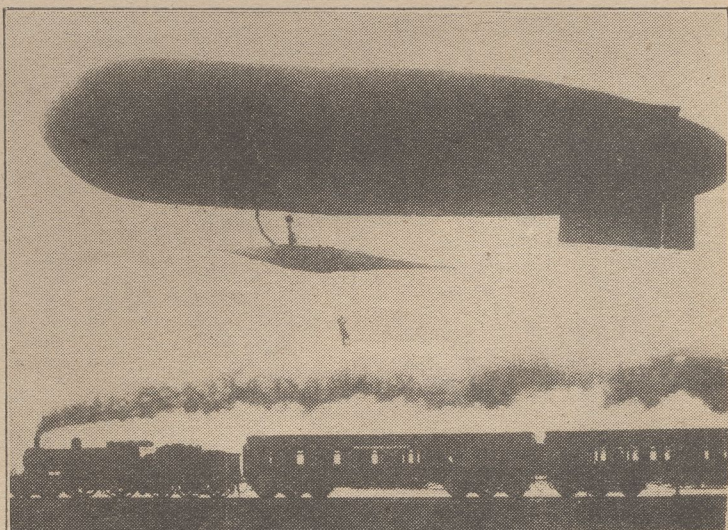
Here's a new one for you ski enthusiasts! All you have to do is hitch on the back of an airplane and hope that the pilot doesn't actually take off. This is the latest at St. Moritz.



Here's a ship that seems glutted with passengers. Four mad wing-walkers string themselves out on the wires and struts, proving what a fine passenger-carrying job you can do if the passengers can stand it.



Dropping from the wing of a plane in full flight to the top of a speeding car is J. D. Pate's idea of a quiet afternoon's fun. He does it often for the movies and so far has been successful, but if one slip is made, Mr. Pate will certainly regret it. "Boots" Le Boutellier piloted the plane.



This is Dare-Devil "Detective" Finn, pulling what is believed to be the most daring stunt in movie history. He changes from the car of a blimp to the roof of a speeding train. We hope the balloon wasn't filled with hydrogen—with that engine belching smoke and sparks that way. But anything for a thrill, so that Detective Finn can get his man.



# Martin Bombers vs. Armed Transports

THRILLING STORY BEHIND THIS MONTH'S COVER

By C. B. Mayshark

**N**EW YORK, the metropolis of the nation, threatened with complete ruin! An unknown foe striking from the mist-shrouded deeps of the North Atlantic on wings of treachery, with all the speed of light and the blasting power of lightning! High-speed bombers converted in a few hours from peaceful commercial craft, loaded with high explosive and bristling with machine guns!

A wild fantasy? Impossible? But not so! Already it has been proved that several well-known commercial types used by many countries are so constructed that within a few hours they may be turned into grim war craft.

Any day, the great city of New York might be shining in the sunlight of a Spring morning to realize suddenly that within an hour the sunshine was to be blotted out by clouds of poison gas, billowing waves of screen smoke and the acrid fumes of high-explosive flame. Great buildings might be blasted from their bases, to topple with the thunder of Thor down into the cavernous streets of the city, wiping out hundreds of lives and spreading destruction in their crunching wake. Death and disease would stalk through the ruins and blot out thousands. Famine, waste and thirst would follow the concussion as these aerial monsters screened behind peaceful commercial insignia swooped down and struck the first blow of an unexpected war.

But their mission might be detected by the roving Coast Guardsmen, and great Martin bombers would sweep into the sky to intercept them. The Junkers Ju. 60 depicted on this month's cover is a typical ship on which this conversion job could be attempted. And remember, Germany is not the only foreign power that uses this type of commercial craft. The Junkers ships are manufactured under license all over the world, so the Ju. 60 could be the vanguard of attack from any one of several foreign countries.

The Ju. 60 is classified as an express monoplane. It will accommodate eight persons, a more than adequate number for a bombing crew. The only visible changes in the ship are the gunner's door in the roof, the bomb equipment, including racks and bombs under the wings, and the machine guns protruding from the side windows. Of course, other minor changes would be necessary within the fuselage.

Perhaps the most interesting feature of this ship is its power plant. The engine is a B.M.W. Hornet, and it is built in Germany under license from the Pratt & Whitney Co. of Hartford, Conn. Its design is absolutely identical with the Hornet series A of the licensor. The Hornet is a nine-cylinder, air-cooled radial engine on detachable engine mounting, and it is capable of 600 horsepower. A three-bladed metal air screw is used.

The ship can attain a speed of 175 miles per hour and has a range of 683 miles. Undoubtedly, however, this range would be greatly increased when the bomber conversion job was completed.

The Martin bomber has received a great deal of publicity, which it has rightfully deserved. The performance of the Martins that made the Alaska trip last summer was indeed enviable. It is the general consensus of opinion that the Martin bombers of the YB series are the fastest and the most efficient ships of their type in the world. These ships do better than 200 miles per hour, and they are so maneuverable that they can be used as pursuit or attack planes in case of emergency.

Presuming that the United States is attacked by an unknown foreign power with an air arm that incorporates a number of these converted commercial ships, let us see what would be the result of an air battle between a Junkers and a modern Martin. We must, of course, take the fictional attitude that a fleet of these Junkers has been catapulted from a giant launching gear, or from the hurriedly converted flight deck of a long tanker, for a secret raid on some important military point on the mainland.

In the matter of a ship-to-ship conflict—that is to say, an equal number of Martins against a formation of Junkers—we must consider the duties of each ship. The Martins are on the defensive, purely and simply, while the raiding Junkers have the problem of making their bombing attack and defending themselves at the same time. After all that is over, they must get back to their surface base.

So far, so good. The Junkers have almost reached the mainland when their move has been spotted and the defending squadrons are sent aloft. If, for instance, as is the case, they have decided on a raid on New York City, they would first have to brave the anti-aircraft fire from any of the several forts in the mouth of the Hudson. This, in itself, is no easy task, and several would probably, on the law of war averages, go down or fail to gain their objective.

The rest would have to make their way through a winged wall of 200-mile-an-hour Martins armed with high speed and high-calibre guns. The Junkers, gorged with heavy bombs, would not get up to their best speed, and all battle tactics would have to be thrown aside in their dash for their targets. The Martins, on the other hand, unhampered by pre-arranged plans, would have the benefit of freedom of action under a general leadership of a squadron leader in a flag-plane. While the Junkers ships plunged on, dead for their objective, depending mainly on their gunners, the Martins would be able to form angle attacks to harass the visitors.

Now, it is not exactly true that the fastest ship always wins a fight, especially where defensive ships try to intercept bombing machines. The last year of the World War proved that, and we shall have to accept the fact that in this great defense, many Martins would be destroyed. However, with the gunnery of the modern bomber-fighter, the air battle would become something of a mid-air battle-cruiser engagement in which speed, careful maneuvering and gunnery would win.

In this case, then, the slower Junkers bombers, confined to a direct line of flight—at least, until they have reached and bombed their objective—would be on the short end of the battle, for the speedy Martins would be able to use all their fighting tactics. The gunnery must be considered on modern figures. No country in the world today is believed to have the aerial weapons that the United States boasts.

Therefore, the Junkers would come under another bitter blow. While the enemy got in the first thrust by surprise in the use of a converted transport ship, the side with equipment especially designed for defensive work would win in the end. The attacking party always loses more than the defending—an old war axiom—but in doing so, it actually accomplishes its end or goal.

Thus, on facts and figures, the Martin bomber should always be able to outdo the converted commercial ship.



# Eagles of Asia

## THRILLING AIR YARN OF THE FAR EAST

By James Perley Hughes

Author of "Titans of the Air," "The Squadron That Would Not Surrender," etc.

JERRY CLAYTON pulled up his Boeing fighter when he heard the dry clatter of machine guns. Dancing gray cones darted past him. They were a type of tracer bullet new to the Far East.

He glanced below. His Boeing, marked with the Black Bat insignia, was racing over the rice fields that flanked the Ho Hang Ho. To the north and east, the Great Wall of China marched over hill and dale on its way to the sea.

Another burst of shots tore past him. Jerry twisted in his seat to see a Kawasaki pursuit plane, bearing the Rising Sun of Japan, diving at him. In its wake were two more.

Clayton scanned their markings. The numerals on the wing and fuselage were those of the Kana squadron, a formation commanded by Major Guru Takahashi, noted as a Yankee-baiter. But the leading ship was not Takahashi's ship, Jerry was certain. It belonged to a flight leader, rather than a squadron chief. The man at the stick must be Fiju Komoto, once a friend, in the years when they had been at Yale together.

Komoto was trying his best to send him flaming into the yellow-green rice fields. Fresh bursts came from the Kawasaki. Jerry Clayton had never been under fire before. As a pilot, he had few peers, and had won his contract as an instructor for the Chinese government by displaying an almost uncanny skill. Now, for the first time, he faced trial by battle.

The Boeing responded to a fuller throttle, and the little ship hung on its prop. A kick sent the rudder over, and Jerry swung around to where he was facing the nearest of the Kawasakis. He leaned forward to peer through the telescopic sights. The cockpit of the third Japanese ship was on the cross of his stadia wires.

Twin Brownings shot out streaks of fire. The cone-shaped tracers leaped forward, and Jerry followed their flight. His telescope brought the face of his adversary very close. His enemy was not Fiju Komoto, but a brown, squat Japanese with slitlike eyes.

A surprised expression came into the Jap's Buddha-like face. He swayed, his hands groping for his gun trip. Then he clasped his stomach and sank forward.

The Kawasaki nosed down. The high-finned tail twisted, and the wings began to spin. In another moment, it was plunging toward the rice fields that flank the Ho Hang Ho.

Then the two remaining Japanese fired at the Boeing simultaneously. They had seen their companion fall, and were plunging in to avenge his death.

Jerry could see the pilot handling the ship that bore the markings of a flight leader. There was no doubt of his identity. He was his old friend, Fiju Komoto, whom he had seen only a week or so before. They had talked of their many mutual experiences at Yale, had even sung some of the old songs after numerous cups of *sam shui* and *saki*.

A bullet flicked at Jerry's flying suit, and instinctively he clasped his hand to his heart. He felt the square package he had buttoned inside his pocket before he started on his flight. It had been given to him by General

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It was a strange battle that was being fought in the skies over the Great Wall of China. Twenty-four hours before, those two had met as friends, classmates. And now, Yank met Jap in a fierce, bitter struggle that threatened to send one of them down to a terrible death in the rice fields far below. Yet never were those two men—  
enemies.

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*Illustrated by Eugene M. Frandzen*

Look Tut Ba, in whose forces Clayton was a civilian flying instructor. It was supposed to be a rare Confucian manuscript which the Chinese were trying to save from capture. Jerry had volunteered to find a hiding place for the precious document.

He wondered if Komoto and his aids were really trying to get this relic of twenty-five centuries ago. It seemed grotesque that they should wage war for such a thing.

FRESH clatters of fire came from the swiftly maneuvering Kawasakis. Slipping out of the line of their dancing bullets, Jerry spun on his wing tips to counter-attack. He avoided a clash with Komoto. In spite of the man's efforts to kill him, Jerry was not ready to slay a former friend.

He dodged away from Komoto and shot his Boeing at the second Kawasaki. His Brownings sang again, but the Kawasaki threw its tail into the air, diving for the rice fields, the power full on. Jerry streaked after it.

Another clatter sounded behind him. Fiju Komoto was coming down on his tail, his Vickers throwing twin streams that threatened to crash the Boeing.

Clayton sideslipped, then dived at the second Japanese again. The pilot had nosed into a zoom, and presented a perfect target. Once more Clayton glanced through his telescopic sights, and dancing gray streams of tracer leaped forward.

They barged into the whirl of the Kawasaki prop, struck the bawling engine, then slid back into the cubby. Following their flight, Clayton saw the prop slow, and the fabric covering split and tear. The pilot was at the end of the pulsing lines that stretched tautly from the Boeing's cowl.

The Japanese twisted convulsively. His body was being riddled. He tried to throw the Kawasaki's tail around, but it burst into flames and fell headlong.

"Just you and I left, Fiju," Jerry muttered.

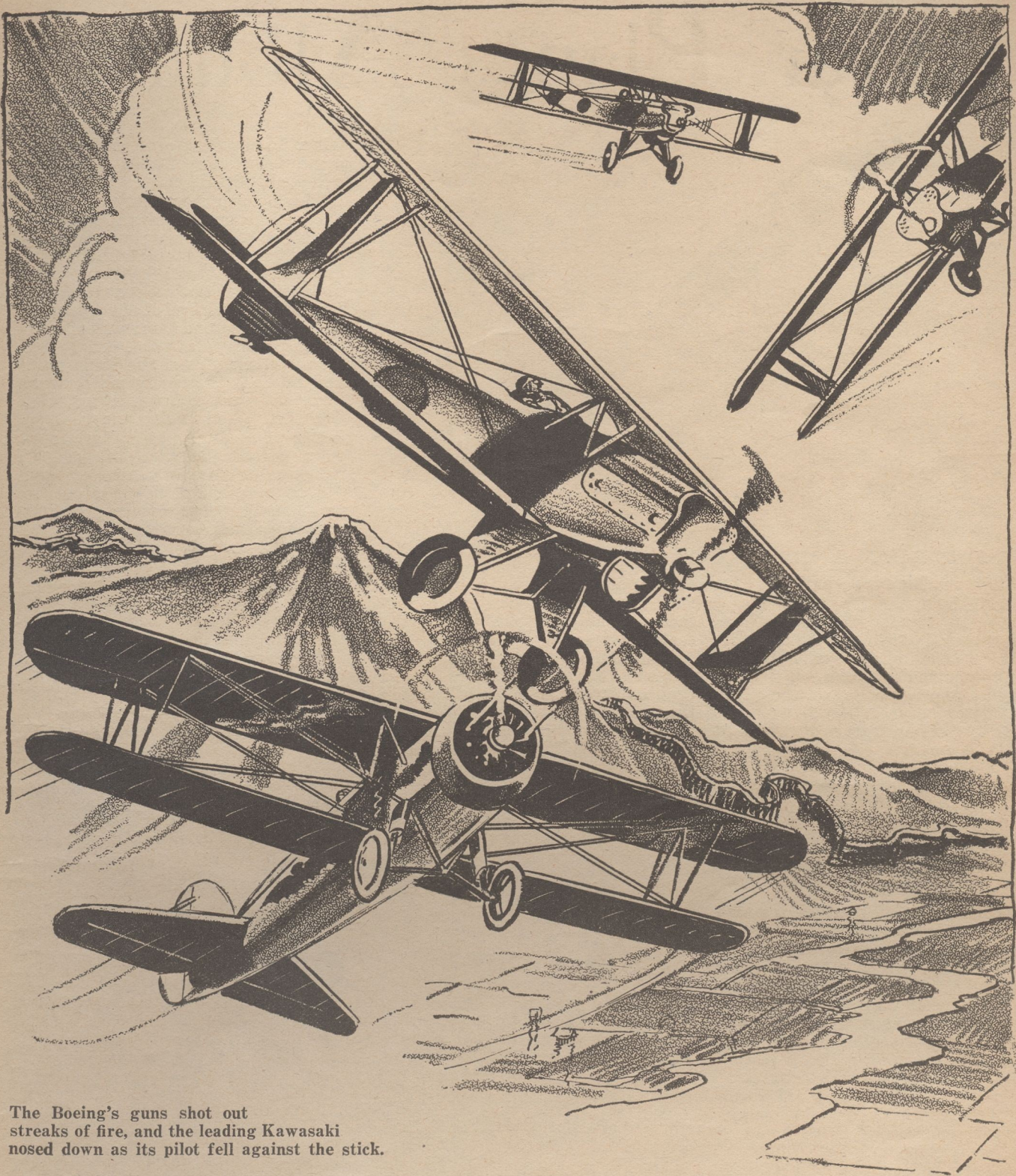
But as he bent over his sights, he saw the Kawasaki nose around and race toward the north. Clayton did not try to pursue. His mission called for a flight to Changsha and the delivery of the manuscript of Confucius to a place of safety. That was all.

With the Boeing speeding toward the yellow waters of the Yangtze, Jerry Clayton took stock of the situation into which he had been plunged. A few hours ago, he had been on friendly terms with the Japanese, who were conducting a warless war against the Chinese along the Great Wall. But fate had thrown him into battle with a man he had known for years.

MID-AFTERNOON saw him glide to a landing on the air field on the outskirts of Changsha. He saw a crowd of American and Chinese mechanics watching his descent. When his trucks had touched and he was taxiing across the level ground, he saw a dungareed figure racing toward him. He recognized Jim Cassidy, sergeant-mechanic in the Chinese Service of Supply.

"You'd better look out, sir," the man called as he neared him. "Feng Tze Fu is gunning for you. He got a





The Boeing's guns shot out streaks of fire, and the leading Kawasaki nosed down as its pilot fell against the stick.

wireless 'bout an hour ago. It looks like—"

Cassidy stopped as a squad of Chinese soldiers raced out onto the field. Jerry Clayton glanced at the angular figure at their head. Then he tossed a small packet out of his cubby.

"Pick it up and hide it," he called to Cassidy. "I'm going to—"

The roar of the motor drowned the rest of his words. He snatched up the tail of his ship and started to cross the field, but a burst of fire came from the Chinese infantry and forced Jerry to cut his gun. He was too close to the hangars to chance a take-off. He had to land.

"Wha' fo' you tly makee walkee-walkee?" The question was asked in pidgin English by a man dressed in the mustard-green uniform of a Chinese *tuchun*.

"I didn't try to run away," Clayton answered. "I just

brought my ship up closer."

"All lite, neveh mind. Gimme Kong Fu Tze letter."

"Kong Fu Tze letter?"

Clayton's last instructions from General Look Tut Ba had been to make no mention of the document to Feng.

"You call 'em Confucius. Gimme."

"I'm sorry, sir, but I haven't it."

Feng Tze Fu did not hesitate. He barked a command in Chinese, and a squad of slant-eyed infantry surrounded Jerry Clayton.

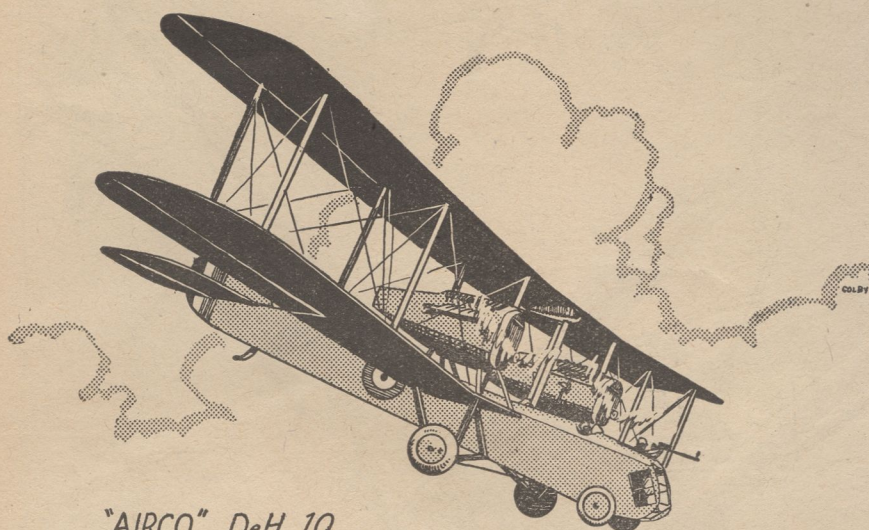
"You tly double-cross and I make you wish you dead man," Feng threatened. "Now, make walkee-walkee with me."

They marched to the *yamen* of a mandarin whom the general had dispossessed, and Feng Tze Fu seated him-

(Continued on page 73)



# War Planes Album



"AIRCO" DeH. 10

## AIRCO D.H. 10 BOMBER

**T**HIS machine was built late in 1917 by the Airco Manufacturing Co. of Hendon, England, as a three-seater day-bomber. Actually, it was a variation of the earlier D.H.3, except that the "3" was fitted with pusher airscrews, whereas the "10" had tractor props.

The interesting feature of this ship

is the method of providing an observation window in the nose for the gunner-bomber. This is exactly the same in every respect as is being done today on many day-bombers and two-seaters.

The method of mounting the engines on each side of the fuselage is typical of today, and in a later model, the D.H.10-a, the motors were lowered to the main spars of the bottom

wing. Take a look around the twin-engined biplanes of today, and you will see little difference.

This bomber saw plenty of service on the Western Front and later became one of the important commercial ships of Great Britain. In general design, it was a back-staggered biplane powered with two Rolls-Royce Eagle engines of 360 h.p. each. The bomber gunner sat up front with a Scarff ring and two Lewis guns. He also took care of the bomb-sight and released the bombs which were hung in racks inside the fuselage. The D.H.10 had folding wings.

The pilot sat in a cockpit well forward of the leading edge of the wings, with a wheel control column. He, of course, had no fixed gun to operate. The rear gunner's cockpit was placed well down the fuselage. He had communication with the front pit by means of a Gosport phone, and in an emergency could reach it through a narrow companionway running between the bomb racks and the main tanks.

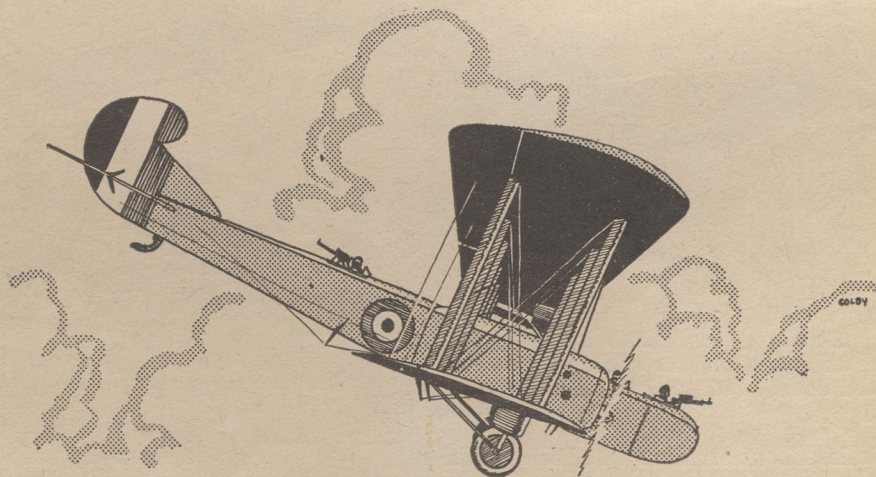
Top speed of the D.H.10 was 117; at 10,000 feet, fully loaded, it could do 115, and at 15,000, 110 m.p.h. It landed at 62 and carried a disposable load, apart from the fuel, of 1,381 lbs.

## THE AVRO "PIKE"

**H**ERE'S another interesting model of the late war-time three-seater built expressly for the Royal Naval Air Service in 1916 as a combination fighter-bomber. This gives an idea of what they were getting at in the three-seater models. In a ship of this type, the pilot and bomber could carry out their actual bombing duties, while the gunner planted in a good position in the rear could do all the defensive work. Then, during the return from the raid, both gunners could go into action.

In the "Pike" we see a wide-winged biplane carrying two 230 B.H.P. engines mounted low on the bottom wing. The airscrews were set tractor fashion. The fuselage accommodation was similar to that of the D.H.10, inasmuch as the bomber-gunner handled his toggles from the forward turret and the rear man has an unusually wide angle of fire. Later developments of this model became the noted Avro "Manchester" ships.

In spite of its comparatively low power, the "Pike" had a top speed of well over 100 m.p.h., with full military load. It was easy under control and comparatively steady in flight,



AVRO "PIKE"

which gave the bomber-gunner a better sighting platform from which to work, and the gunners a steadier base from which to fire.

The bomb arrangements displayed many features. The racks inside the fuselage would carry a number of 50- or 112-pound bombs. In addition, there were metal racks under the fuselage and near the wing roots, carrying

various types of detonation and fragmentation bombs that could be released from the front cockpit.

The undercarriage was wide-spread for safe landings, and the front legs of the Vee were sprung in olio casings. A large, balanced rudder and a small fin were the most interesting features of the monoplane-type tail assembly.



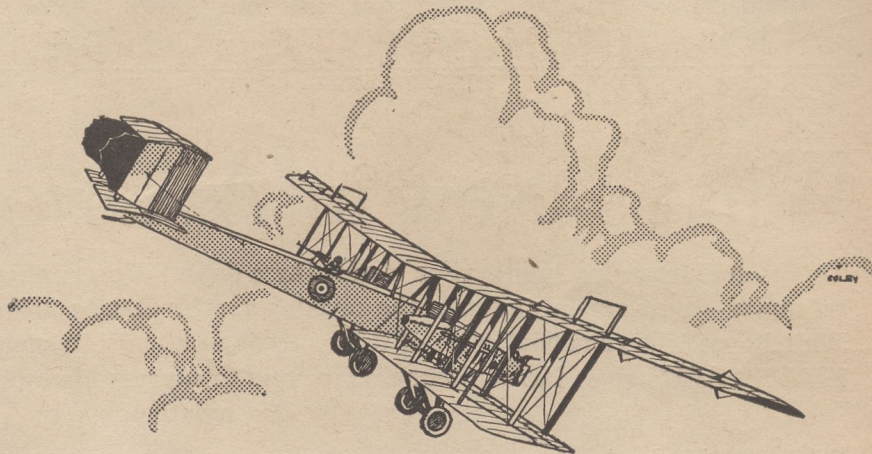
The development of the three-seater machine during the war was the first real indication of specialized aerial warfare. Prior to this, fighting ships had been designed for single-seater action or two-man cooperation. The three-seater offered wider range of action and a fuller program of duty for pilots, gunners, and observers. These four British machines, the "Airco" D.H.10 Bomber, Avro "Pike," Blackburn "Kangaroo" and "Bourges" Bomber, give a clear idea of the various forms these designs took, but experts say that the ideal three-seater is yet to be built.

#### BLACKBURN "KANGAROO"

THE Blackburn firm with factories still at Brough, England, brought out this three-seater long-distance bomber in 1917. It was designed from the twin-float seaplane which this firm had designed for the Admiralty the year before. Many of them were actually used on long-distance bombing raids out of English bases, and also on anti-submarine patrols.

It was a typical wide-winged biplane, powered with two Rolls-Royce Falcon engines of 250 h.p. each. These gave it a speed of about 92 m.p.h., fully loaded. The motors were mounted between the wings in special streamline tubing spiders that were a good deal like those later used on the big Handley Page. Under each motor was a separate Vee-chassis with two wheels.

The fuselage carried the pilot's cockpit, well in advance of the leading edge of the wings. There was a gunner-bomber's cockpit well up front in the nose. The second gunner was mounted midway down the fuselage.



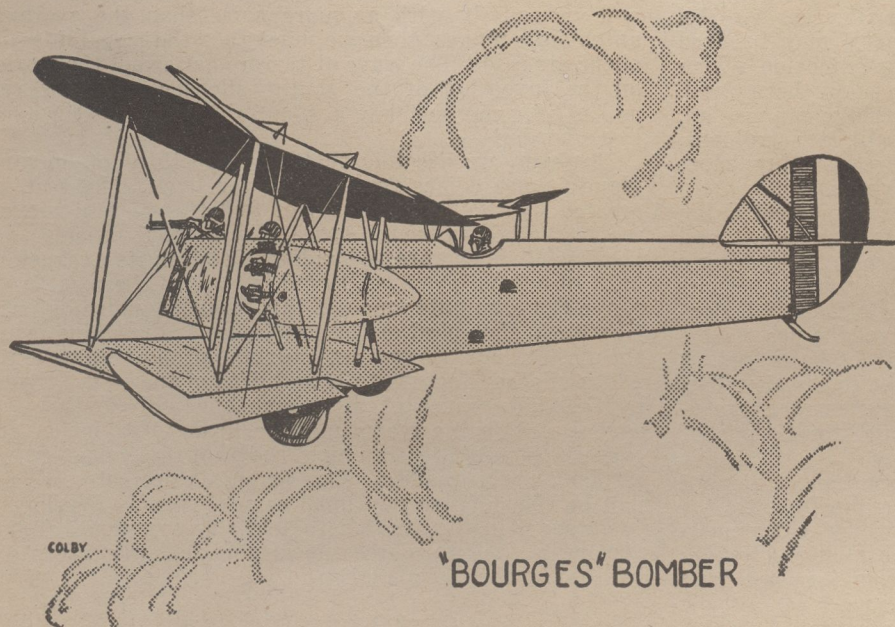
BLACKBURN "KANGAROO"

The upper wing had considerable overhang, compared to the lower. Its span was 74 feet, 10 inches, while that of the lower was 47 feet, 9 inches. Fully loaded, the ship weighed 8,100 lbs. It carried 230 gallons of fuel and 18 gallons of oil, which, under normal conditions, would keep the ship in the air for eight hours.

The tail assembly used was the normal biplane type, with two fins,

which were used as fairing to the inter-tail struts. The elevators and rudders were feathered along the trailing edges, in the French manner. The bomb racks were interchangeable for many types of bombs, depending on the work in hand.

The Blackburn firm still turns out many fine military types, particularly torpedo bombers and others for Fleet Arm work.



"BOURGES" Bomber

#### "BOURGES" Bomber

IN 1918, the British decided that most of the bombing machines in use on the Front were too clumsy and cumbersome, in spite of the fact that they were supposed to be heavy load-carriers. Several firms were

asked to submit designs for something new in bombardment ships, and the Boulton and Paul Company of Norwich, England, came out with a startling ship which was immediately accepted. This was the Boulton and Paul "Bourges" bomber, a comparatively small and trim machine that

instantly made a great hit with the pilots who were selected to fly it.

The "Bourges" was a twin-engine job, fitted with two A.B.C. Dragonfly radial engines, which were just being perfected at that time. These motors gave the "Bourges" a speed of 124 miles an hour, which was well above anything of the type up to that time. The engines were fitted into special power eggs between the wings, and the ship showed an unusually high tail. There was a wide undercarriage for safety in landing, and from prop to rudder she was a beautiful job.

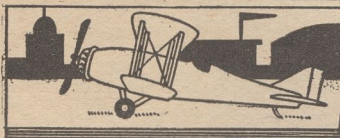
The ship carried three men. The pilot and observer sat together up in front, while another observer or gunner occupied the rear pit or gun turret. She carried fuel for nine hours, which indicates that in all probability she was actually designed for long-distance raids on the interior of Germany.

From all accounts, when the war ended, England was massing a great circus of these ships for a concerted raid on Berlin and other great cities of the Fatherland that had not tasted the bitter dregs of high-explosive from enemy raiders. It is possible that Germany had already learned of this and made the hurried peace overtures that eventually led up to the Armistice.



# HAPPY LANDINGS

BY ARCH WHITEHOUSE



## What's New in Aviation Inventions?

Things are happening in invention circles these days. Silencers on airplane engines, new and deadlier guns, catapults—these are only a few of the amazing new inventions being perfected at the present time. Arch Whitehouse tells you about some of these recent aviation developments this month. In this department, **FLYING ACES** gives Mr. Whitehouse free rein to express his own personal views on different phases of aviation.

**T**HE Maxim brothers, inventors of war equipment and explosives, have always intrigued me, but I have a hard time keeping them straight. It was not until just recently that I learned that there were not two, but three of them at it at one time or another. Hudson Maxim invented smokeless powder for cannon, maxinite and another lovely little concoction known as stabillite. His brother, Hiram Stevens Maxim, invented the Maxim gun and got himself knighted in England, where, it seems, he was better appreciated. He was (he died in 1916, right in the middle of the World War) the noted Sir Hiram Maxim whose weapons have probably killed more human beings than any other device in the world.

But there was another Maxim, a Hiram Percy Maxim, another inventive American, who is credited with a beautiful little device which for a time created a real sensation. This was called the Maxim silencer. A pistol or rifle, fitted with one of these devices, may be fired without there being any ear-splitting explosion which would indicate that a weapon had actually been fired. A dull click of the hammer on the cartridge cap was all. The firearms industry gloated over this little instrument, for it meant that there would be more shooting, more gun clubs, more target practice everywhere.

Strange to relate, the instant Maxim perfected his device and had it patented, he tried to suppress it and withdraw it from the market, for instead of becoming a boon to mankind by muffling little explosions, it became one of the most deadly devices known to mankind. Legislation was hurriedly adopted to control the use of this device. Murders followed which could not be traced. It gave the detective story writers of the day a new life, for within a few months they had silencers on everything, little knowing the real facts and limitations of the silencer.

I might add here that a Maxim silencer cannot be used on all weapons, and when you see a movie with the villain killing the victim with a revolver carrying a Maxim silencer, you are justified in throwing old shoes at the silver screen. You see, a revolver does not have a tight breech mechanism, and the sound can escape past the slot between chamber and the barrel. An automatic cannot be fully silenced, either, because of the noise made by the automatic breech mechanism. Only single-shot pistols and rifles can be completely silenced.

All this, of course, is only a lead-up to what I started out to say about modern inventions as pertaining to aviation. One of the things that has been a big drawback to aviation, as far as the general public is concerned, is the tremendous noise from the engines, both

to the passengers in the machine and to the public on the ground. It has been the problem particularly during the past fifteen years of the commercial companies, who have been trying to get people off the ground and out of the Pullman berths. While they do not realize it, they are slowly but surely carrying us into another of these silencer situations that will wind up with international legislation.

For years we have been hearing about silencers for airplane engines and at last they seem to be getting somewhere. A demonstration in England a month ago disclosed that a device known as the Vokes silencer, fitted to a Gypsy Moth and an Airspeed Courier, muffled the explosions from 109 units to 79 with no effect on the power output of the motor. It could not reduce the noise of the propeller, of course, but it shows that they are getting somewhere, and when they complete the job and we can fly with no more noise than the average automobile makes, then we must face the possibility of silent air raids. The wave of terror that swept the world on the invention of the Maxim silencer would be repeated if some one flew a silent ship across some one else's border.

However, we are told that only one third of an airplane's noise comes from the motor itself. The rest is created by the propeller, wires and the general movement of a body through space. The noise itself is made because air is compressed suddenly and, in its expansion back to normal pressure, sound is created. So what?

We can eliminate much of this propeller noise by cutting down the speed of the prop, once the machine is in the air. Perhaps we can get a turbine prop arrangement, add a silencer feature to it and deaden the sound made by the disturbance of air. Some one will do this, of course, but in the meantime, the heads of aviation all over the world are watching the progress of muffling airplane engines, and as soon as one is perfected, there will be the devil to pay until some device is developed to detect it in the air. It's the old war argument of inventing a shell to pierce the armor that was invented to stop the shell, etc., etc.

### GUNS BEING IMPROVED

**T**HE inventors are at it with guns, too. Britain has the new Vickers light cannon, throwing a 37-mm. shell. France has the new 20-mm. cannon fitted directly into a new Hispano-Suiza motor. The United States has gone far with the new high-speed 50-cal. machine gun. Germany has the Gerlach bullet, an ordinary-calibre

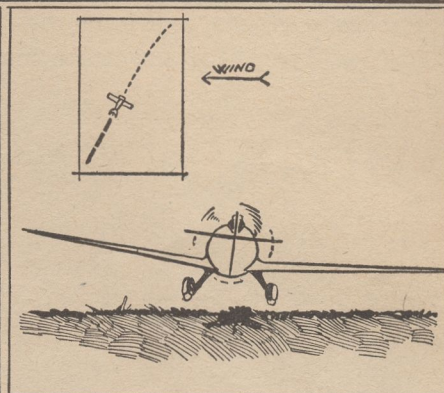
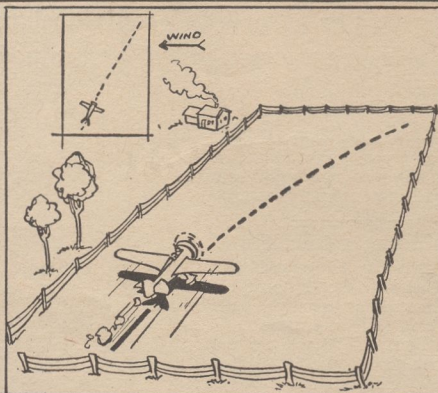
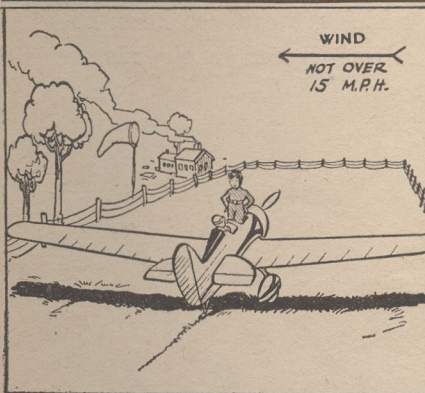
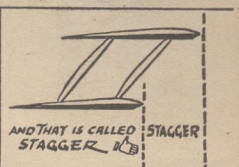
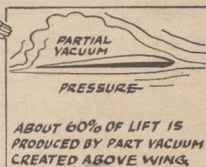
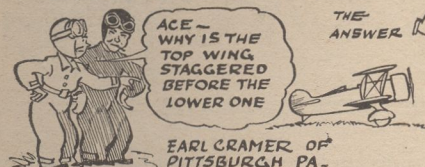
(Continued on page 80)



# FLYING ACES PICTORIAL FLYING COURSE

ACE MECCOY YOUR INSTRUCTOR

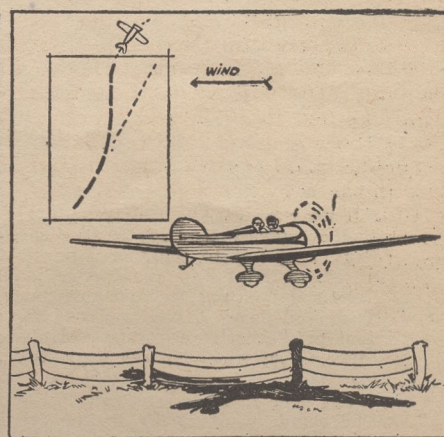
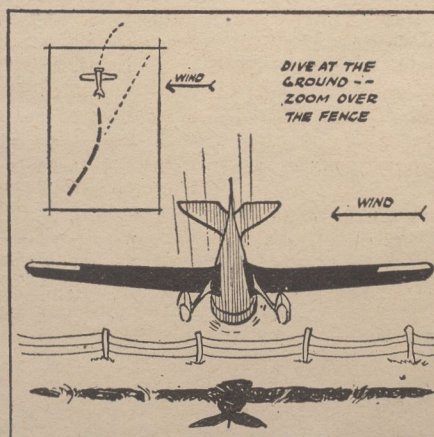
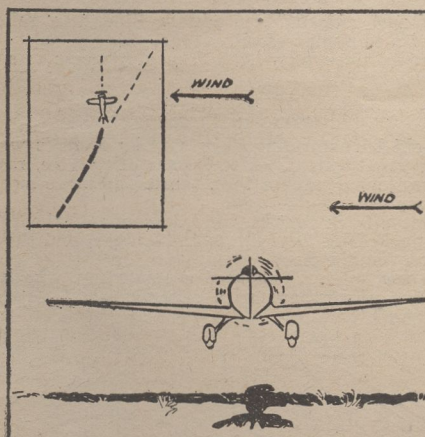
LESSON NO. -15-



And now we'll try the cross-wind take-off, so you'll know how to do it when you're forced to. But don't do it unless it's absolutely necessary, and NEVER when the wind is more than 15 miles per hour.

Now nose the ship into the wind as closely as your take-off area will permit. Avoid hidden ditches and gopher holes. Give her full gun quickly, and lose no time in getting your tail up.

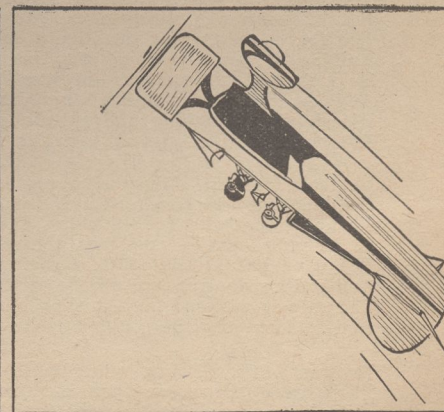
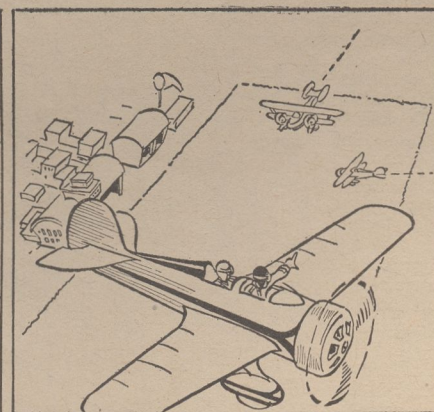
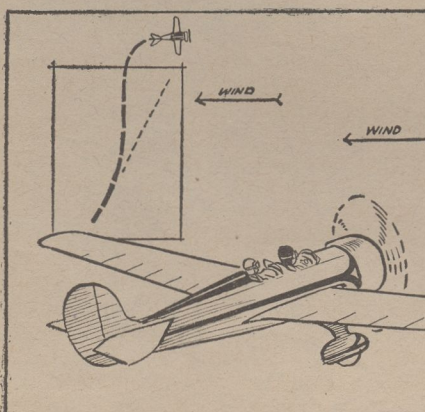
Keep the windward wing down as in cross-wind landing, just enough to keep the wind from ground-looping you, but don't let it get so low that there's danger of hookin' it into the ground.



Just as you get 'er clear of the ground, level your wings off with the horizon and turn back slightly down wind. Ease it over without banking, gently, so you don't lose any of your flyin' speed.

Fly level until you've gained maximum speed. If necessary, you may even dive it a little in order to get it, if your space is limited. Then zoom for your required altitude at edge of the field.

When she's a-flyin' full speed ahead an' you're sure there's no danger of stalling, turn her nose slowly back into the wind, using just as little bank as possible at such low altitude.



Feel the wind pressure on your face and be sure you don't lose any of your flyin' speed as you turn her nose into the wind. Then you can start your slow normal climb. Don't rush it.

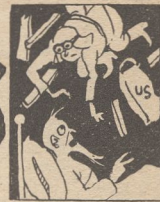
Don't ever practice cross-wind take-offs and landings around a busy airport. It's against all airport rules and Department of Commerce Regulations. There's danger of colliding with ships obeying the law.

Practice it in a cow pasture and be sure your windward wing is always DOWN. So now, get used to some rough stuff, 'cause next lesson you're gonna get the ol' thriller, STALLS and SPINS!





# WISECRACK-UPS



Taxi in on this runway and pick up a plane load of laughs! In this department, we present a collection of jokes, cartoons, and humorous verse. For all original contributions which we can use here, FLYING ACES will pay \$1. No contributions will be returned unless a stamped, self-addressed envelope is enclosed.



"I told you we wasn't quite as good as the birds yet, Mike."

## FROM START TO FINISH

Sky: You say you gave Jim a start when you said he'd have to use a parachute?  
High: Yes, I made him jump.

## BLOIS IS RIGHT!

Pinkham (talking to guard through the bars of a cell at Blois): I don't like Garrity or Howell. They was always quarrelin'.  
Guard: Yeah? All the time?  
Pinkham: Yep. If it wasn't me 'n' Garrity, it was me 'n' Howell.

## THAT'S TELLING 'EM!

Two pilots of war-time vintage were watching a gang of recruits being shown the ropes.  
"You can always tell a kiwi," remarked one.  
"Sure you can," replied the other gloomily, "but it doesn't do any good."

## AVIATOR'S VERSION

Here today—Guam tomorrow.

## DENNIS JONES

(Editor's note: This air version of the famous old ballad, "Casey Jones," was sent to us by one of our readers.)

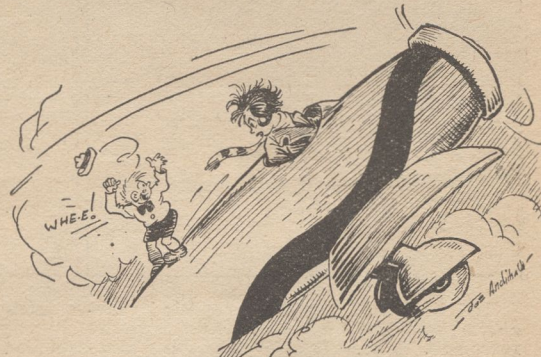
Fill up your glasses, folks, and turn off the jazz,  
And everybody lend me all the ears he has,  
For I'm going to tell you a heroic tale  
About an aviator on the 'Frisco Mail.  
Dennis Jones was the airman's name,  
A son of Casey of the railroad fame,  
And his father's record he had always prized—  
Since Casey died, he was orphanized.

'Twas deep in the winter, and the winds were high;  
The clouds were racing in the evening sky,  
The pilots agreeing as they gathered around,  
'Twas a darn good night for staying on the ground.  
The night mail from 'Frisco, it was pitched aboard;  
Dennis hollered "Contact!" and his engine roared.  
The runway slithered back beneath his ship,  
And he took off on schedule for the eastern trip.

The mist was whirling and the night was thick,  
But his hand was steady as he grasped the stick.  
The fog closed around him like a cold, gray pool,  
And death was a-reaching for this flying fool.  
He looked at his compass—he was flying blind—  
And the Rocky Mountains, they were on his mind.  
His ship was pitching and his chance looked bad,  
But he thought of the valor of his famous dad.

He looked at his altimeter, worry in his gaze;  
He tried hard to penetrate the deep, gray haze.  
He knew that ahead of him the Rockies loomed,  
So he pulled back sharply on the stick and zoomed.  
The wind had freshened to a raging gale,  
And it bore down heavy on the airplane's tail.  
The ship it wavered, and it slipped and slued,  
And he knew that he couldn't make the altitude.

He was doing his duty when this pilot died—  
They found the wreck upon the mountainside,  
With his fingers clutching the ignition switch,  
For he'd fought to save the mail until the last darn ditch.  
And that, dear people, is the end of the tale.  
There's another pilot flying on the 'Frisco mail.  
The son like the father at the throttle died,  
And they laid him tenderly at the old man's side.



"Willie! You didn't wash your face!"

## LITTLE BY LITTLE

Pilot of new midget flivver plane: Give me a gallon of gas and a half-pint of oil.  
Gas station attendant: And do you want me to spit in the radiator?

## RESTING IN PIECES

In the old barnstorming days, Curtiss Jennies were used to a great extent. After years of service, most of them had more patches than fabric and more motor than horsepower.

One pilot relates that he landed at one of the rare airports, pushed his Jenny into the hangar, and threw a blanket over the hood.

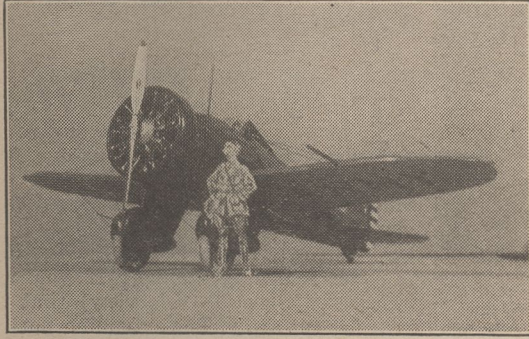
"S no use, mister," shouted a small boy, who had followed the proceedings with eager eyes, "I already seen the junk."



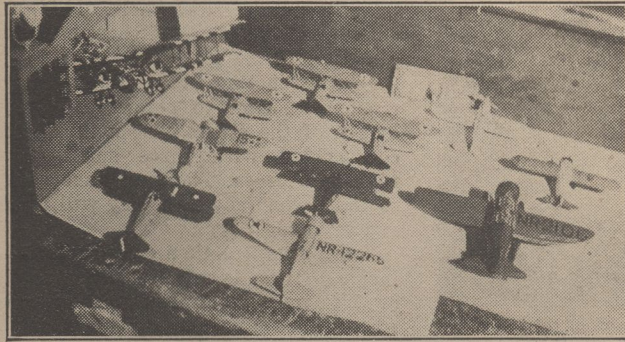
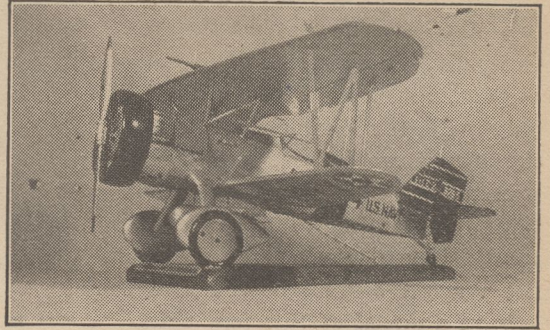
"Take an air-mail letter."



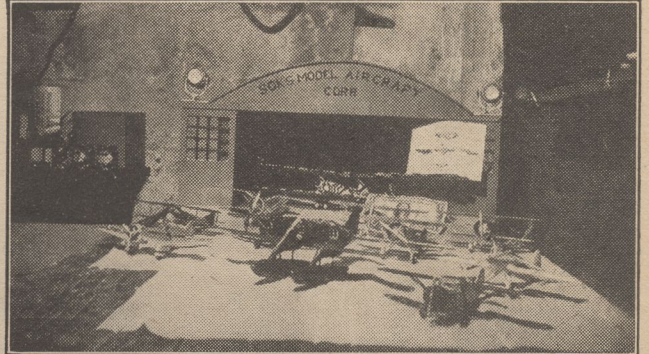
# With the Model Builders



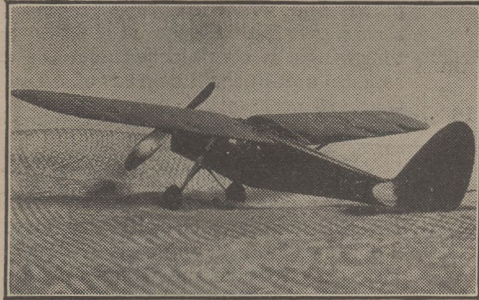
Here's something that will amuse all of you! Recognize the figure standing in front of the model ship at the left? Yes, it's none other than our old pal, Phineas Pinkham, made from a Joe Archibald picture cut from *FLYING ACES*! The war must be over, for he's looking at a model of the Boeing P-26. This and the Curtiss F 11 C-2 model at the right were built by Herbert Kelley, of Salem, Ohio.



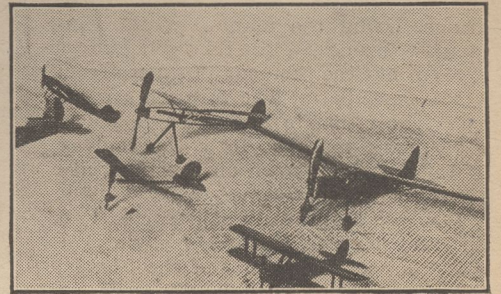
These two line-ups look mighty impressive. John Sokol, of Arnold, Pa., calls his layout Sok's Aircraft Corporation, and among the smart models grouped above, you'll find the Spad, Nieuport, Hawk "Sky Chief", Polish Fighter, Seversky, Fairchild, Howard Ike, Gotha Bomber and three Curtiss Goshawks. Quite an array!



From far-off England come the pictures at the left and right. Alan E. Peters, an F.A.C. member from Surrey, sent us these snapshots of his solid scale Fokker D-7 and Nieuport. Neat-looking models, Limey!



And here are some more models from across the sea! Brian Murphy, leader of the first F.A.C. Squadron in Dublin, Ireland, tells us that all the models pictured were built by Squadron members. You'll know the Puss Moth on the left, and you'll find an Indoor and an Outdoor Trainer in the group at the right.



A group of boys of the H.N.O.H. Model Airplane Club of Yonkers, N. Y., take their models out to give them a taste of winter flying. Left to right, H. Pisark, Irving Hyatt, Irving Romn, Leo Freidland, Seymour Wofsy, Joe Friedland, Gil Michelson, Mendy Bergman, Morris Silberberg, Ike Fozz, and Abe Frost. They all have twin pushers of various designs.



Miss Pearl Switzsky, of Los Angeles, Calif., is shown holding her two-foot model of a Curtiss Goshawk. The model has all movable controls. It is built accurately to scale, and what's more, Pearl built it by herself!



# Here's the Waco F-3

By Avrum Zier

Here's something new and interesting—the latest model from the Waco Company, the Waco F-3. This model is of such recent design that it is only with the kind cooperation of the company that we are able to present complete plans and directions for building a model of it this month. Get to work right away on the Waco F-3—and be the first to have a model of this new ship.

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IN the future, this department of FLYING ACES will have the kind cooperation of the aircraft companies whose models appear in this section. This month, in collaboration with the Waco Company of Troy, New York, we present plans for building an exact replica model of their latest model, the Waco F-3.

Due to the fact that the Waco F-3 is of recent design, it was impossible for us to obtain the usual complete data at the time of this writing.

## FUSELAGE

THE construction of the fuselage is clearly illustrated on sheet 1. Though this drawing is not accurate as to the placing of the formers and dimensions, it nevertheless serves to give the general method of how the fuselage should be constructed.

Obtain about 12 strips of 1/16" square balsa. Gluing Sheets 2 and 4 together, you will have a side and half the top view of the inside fuselage frame. Using the plan as a jig, construct two sides. While the jigs are drying, cut out the necessary formers from 1/16" sheet balsa. The formers are cut into four separate parts. These parts, after being made to form the contour of the formers shown on the plan, are glued around the frame.

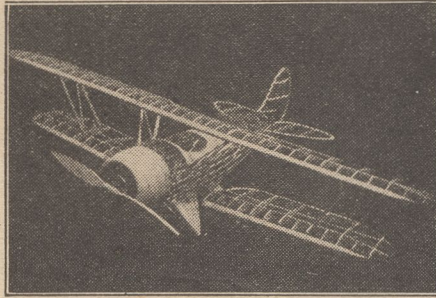
Formers 5 and 6 are constructed in a different manner. Instead of having the sides and bottom cut out of sheet balsa, they are shaped with 1/16" reed and reinforced with 1/16" braces.

Having glued all the formers in place, next glue the stringers in their proper place.

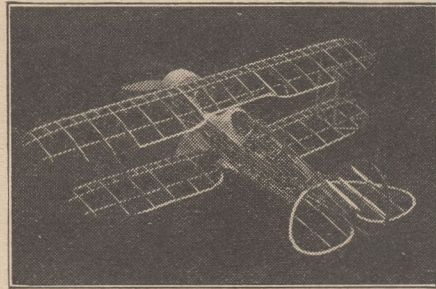
The stringers within the height of the frame are placed at 1/4" intervals. Top and bottom stringers are placed accordingly. The top and bottom stringers should not follow in a straight line, as do the side stringers, but should follow the shape of the fuselage down to the last former. Use 1/16" stringers cut from balsa on the side. At the top, 1/32" bamboo stringers are used.

## WINGS AND TAIL

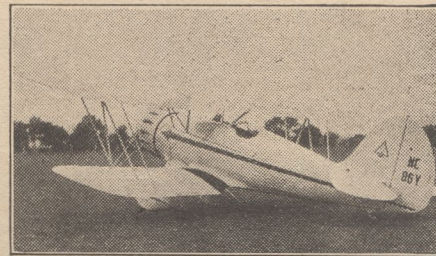
THE construction of the wings follows along the same line as have the other models. Use a solid edge and



*This picture of the uncovered Waco F-3 model built from the plans given here will help you in your building.*



*Another view of the framework of the completed Waco F-3. It's a beauty!*



*Here's a picture of the ship itself! Compare this Waco F-3 with the snapshots of the model above. Practically twins, aren't they?*

two spars of 1/8" x 1/16" to obtain strength. Cut out the necessary ribs as shown. The ribs are all cut from 1/16" sheet stock. Pin down the bottom rear spar and place your ribs in their proper place.

Without sanding the leading and trailing edges, glue them in place. The tips are outlined with model-making pins. Bamboo is then bent around the pins to form the desired contour of the wing tip. Now glue the joints and set them away to dry. It would be advisable to trace the wings shown on the plan so that you will have both tops and bottoms to work with.

Ailerons may be made to move or to remain stationary. In both cases, cover them with 1/32" sheet balsa.

The construction of the tail is simple. The ribs are shaped. Dowels of 1/16" are used as spars, and the outline is bamboo. The stabilizer is attached to the passing stringers before the rudder is glued in place. Cover the complete tail with paper. Should you wish to make the rudder and elevator movable, you should use double spars connecting them with an aluminum sleeve.

## COWL AND LANDING GEAR

THE cowl is constructed of four separate pieces. These pieces are all glued together and sanded as one. The inside is cut out to house a 2-inch motor. The complete cowl is coated with banana oil and sanded.

The cowl is attached to the fuselage in the following manner. If you will notice on Sheet 1 (side view) that the cowl is cut away. The extending portion entering the rear of the cowl is cut to fit a 2-inch circular hole. This part should be cut out of 1/4" sheet balsa and glued to former 1.

In constructing the landing gear, you must take care to obtain the proper length of the struts. The main strut is constructed with three spars—front, rear, and cross. The spars are sanded so that, when covered, they will form a streamlined body.

The pants are then constructed. The inside of these is cut out so that a wheel of 1 1/2 inches can easily rotate. The wheels should contain eyelets. Coat the pants just as you have the cowl.

## ASSEMBLING THE MODEL

ATTACH the rear surfaces first. The leading edge of the stabilizer is raised about 1/32 of an inch. With the tail surface set in place, put on the landing gear so that the tail lies on a straight line from tip to top. While you are waiting for the landing gear to dry, you can carve the propeller out of the block shown on Sheet 6.

The center section is first glued in place and attached to the cabane struts. After this, glue on the two bottom wings, setting blocks under the tips so as to obtain the 2 degrees of dihedral that are necessary.

After the bottom wing has dried in place, construct your "N" strut and attach to the proper rib. When the "N" strut has dried in place, you can attach the top wing, which will also have a 2-degree dihedral angle. It will not be necessary to give the wings any angle of incidence. The cowl is then attached to the fuselage.

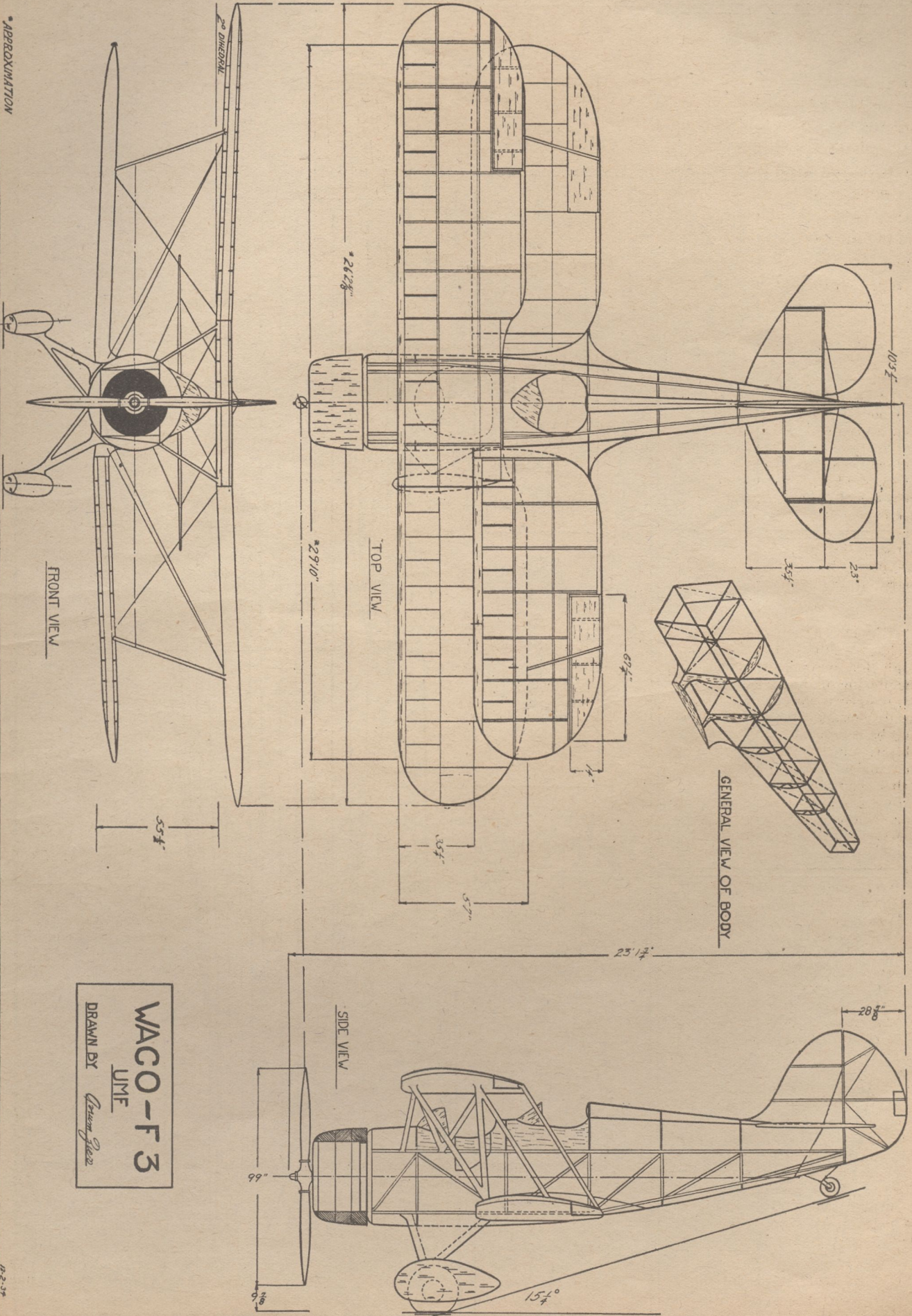
## POWER PLANT

THE propeller, after being carved, should be doped with clear banana oil and sanded. The shaft of the propeller is bent out of number 6 wire. It is inserted through the motor, then attached to the propeller. Four washers are necessary to prevent friction. After the propeller is attached to the 2-inch motor, glue the motor into the cowl, first attaching the rubber. Three loops of 3/16" flat rubber are sufficient.

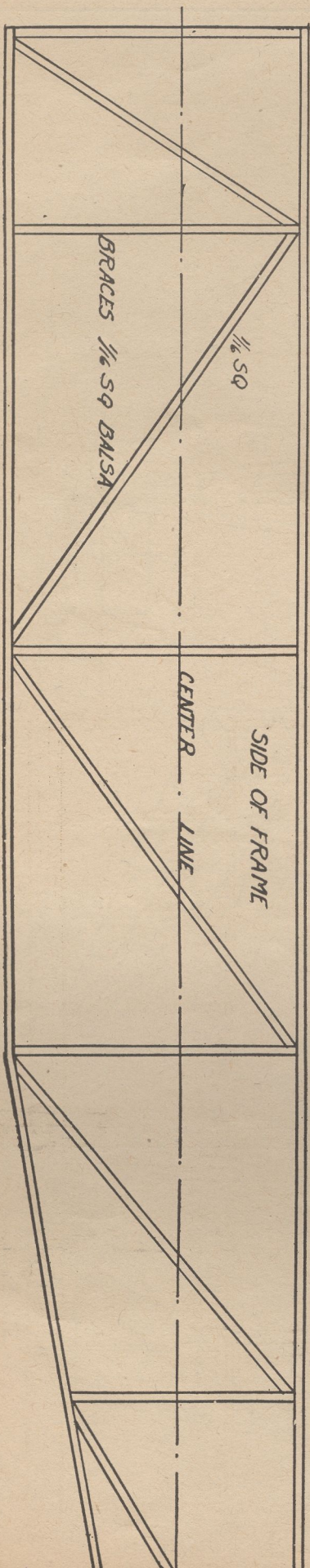
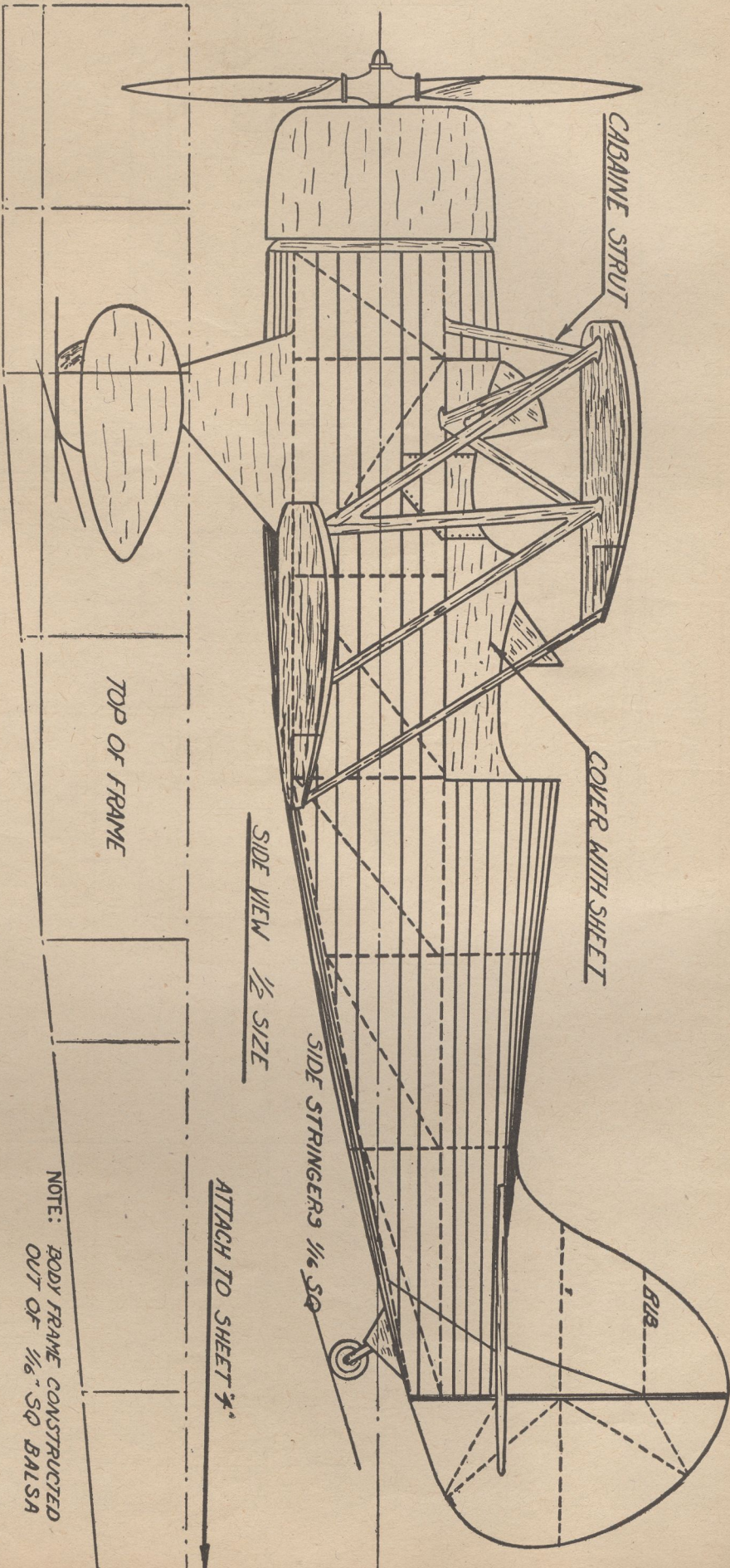
Cover the complete model with paper and spray with water. After the paper has been drawn tight, coat it with two coats of banana oil.



• APPROXIMATION



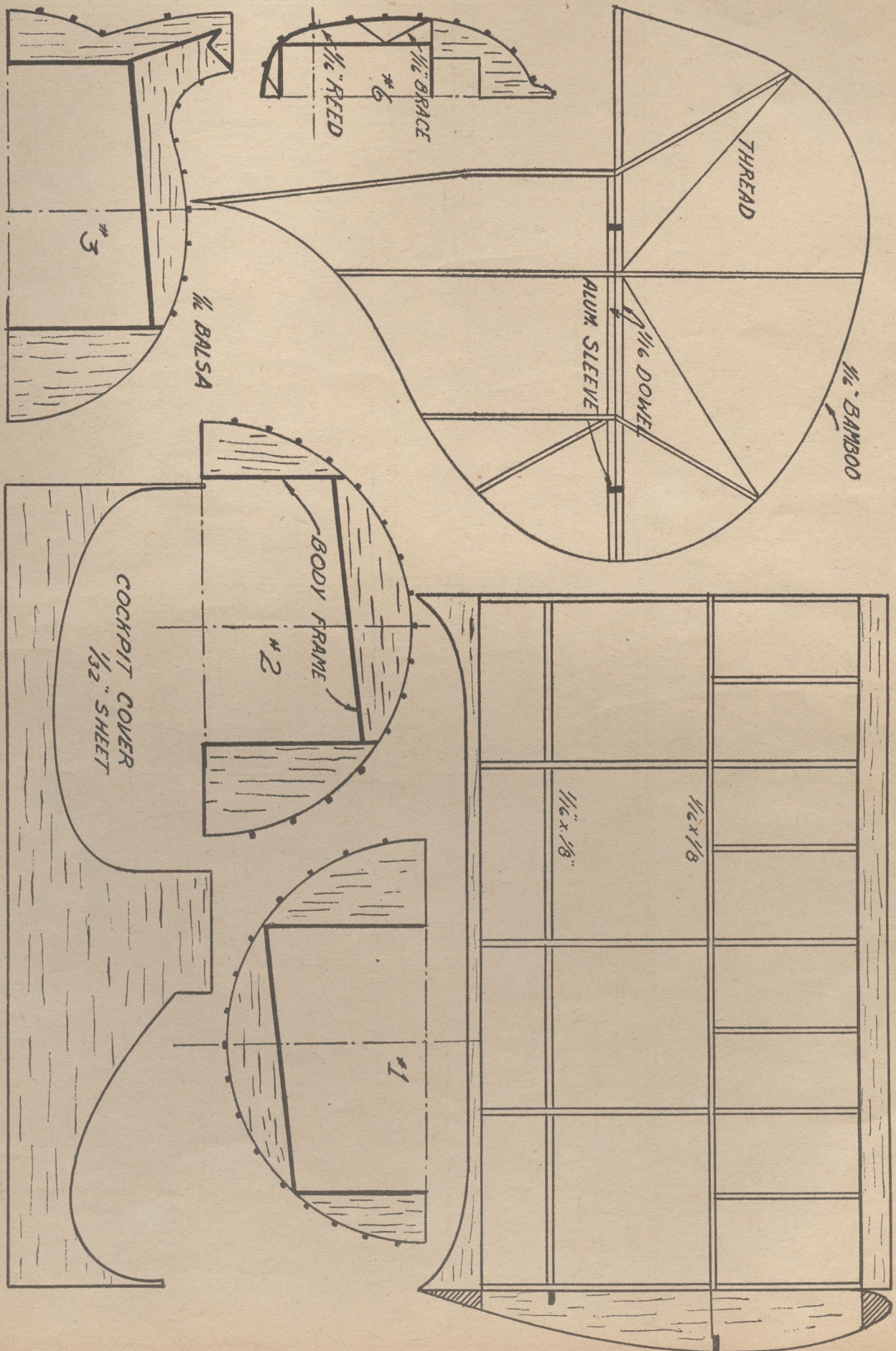




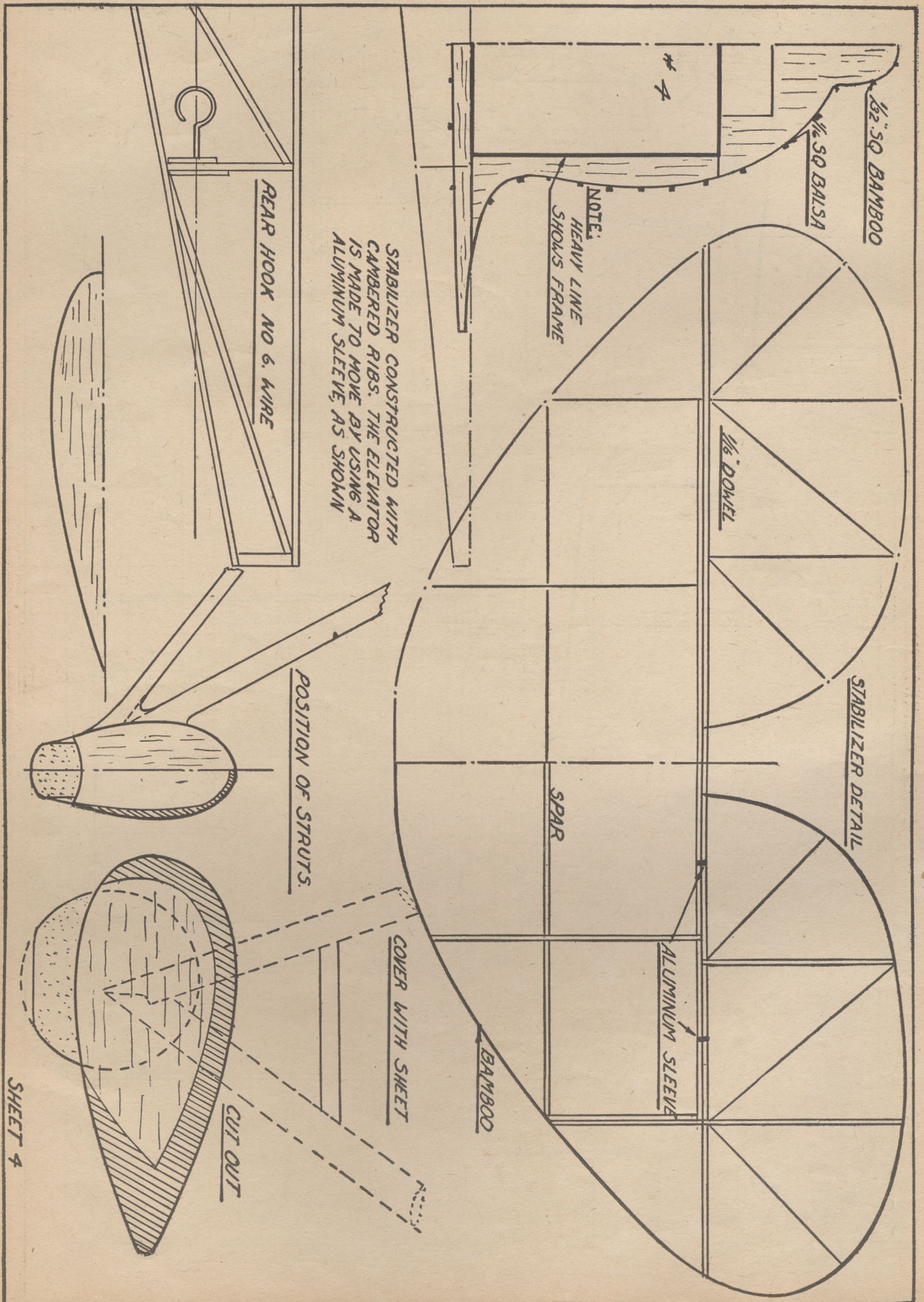
SHEET 2.



CENTER SECTION OF WING (TOP)

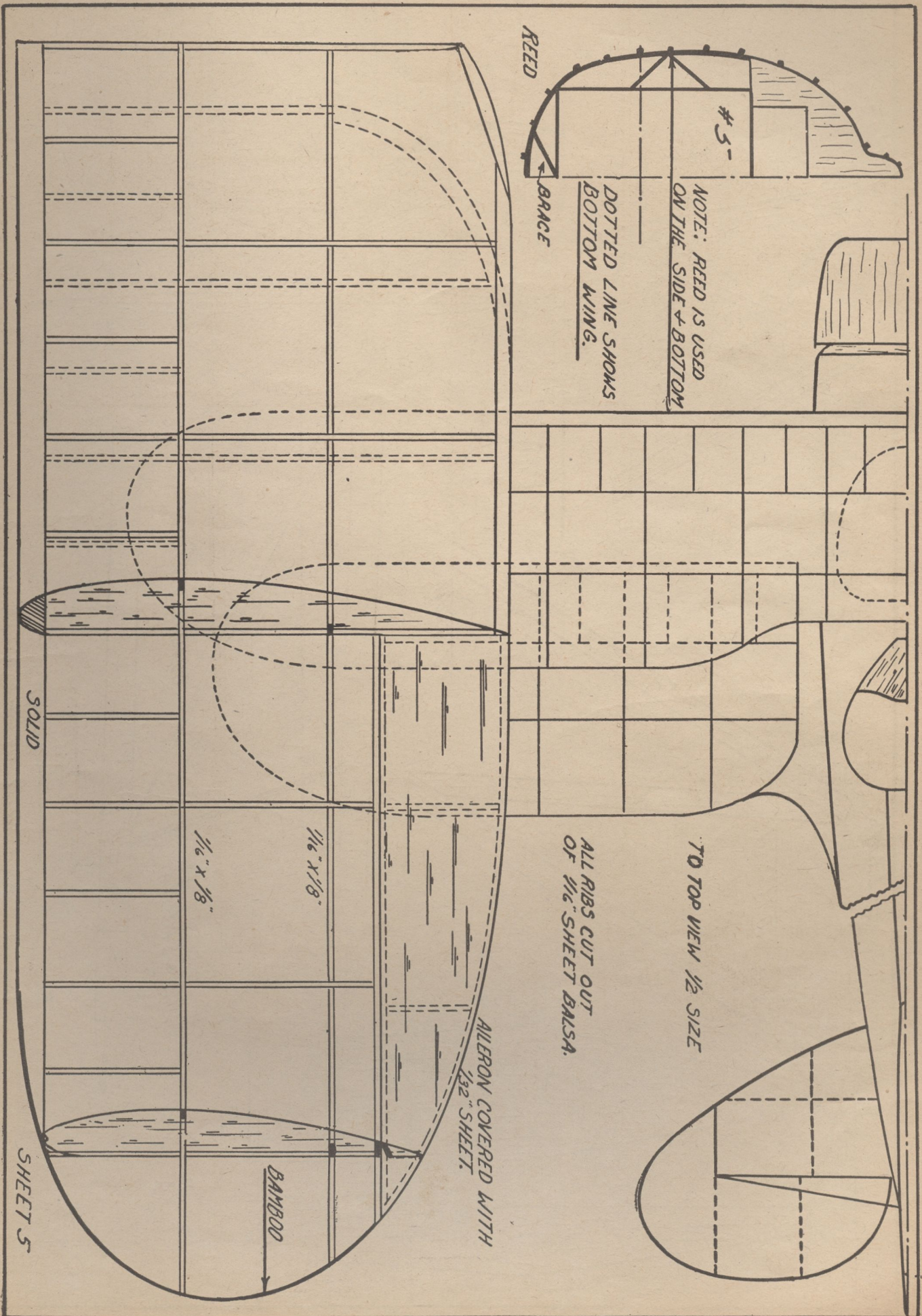




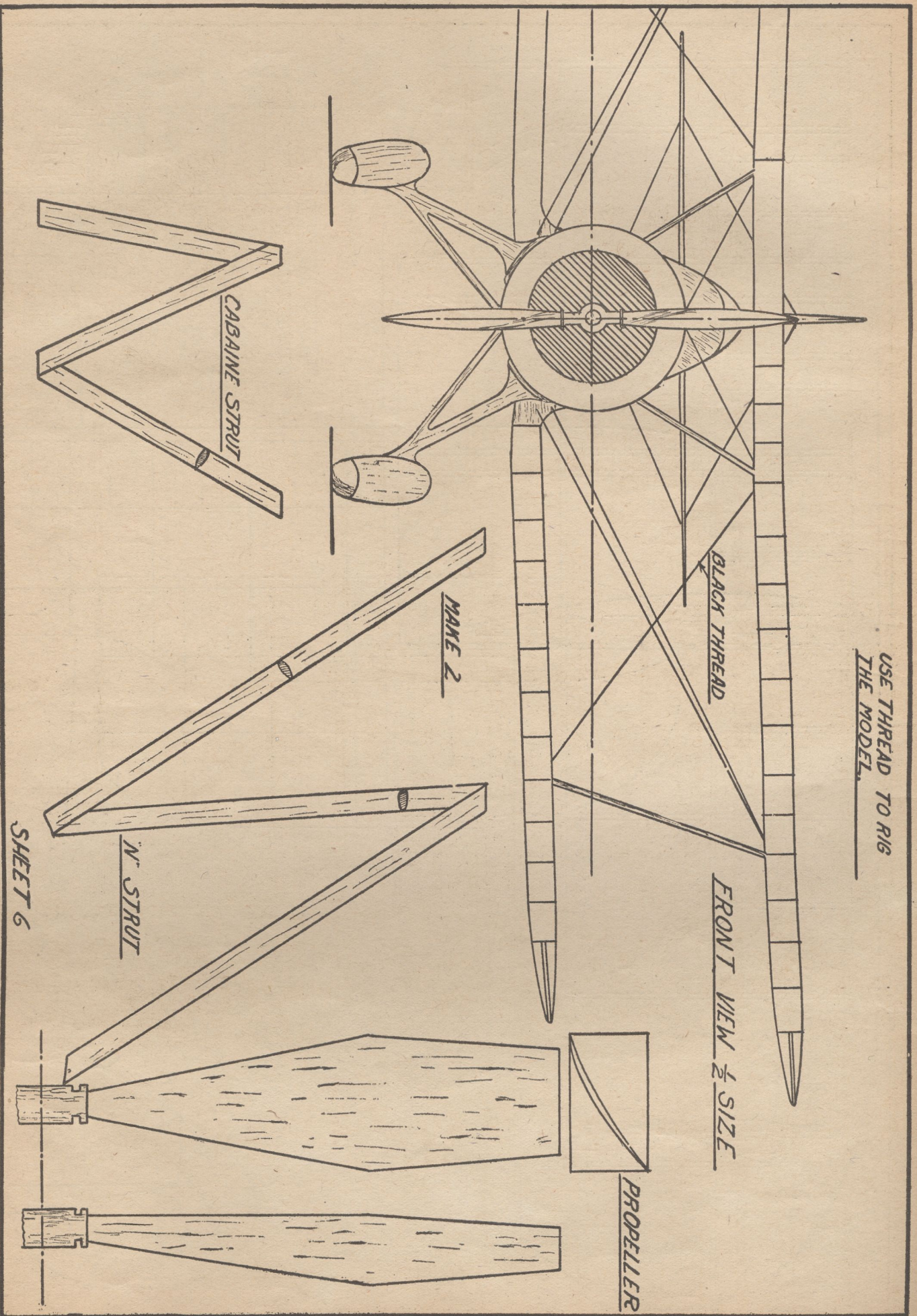


SHEET 4









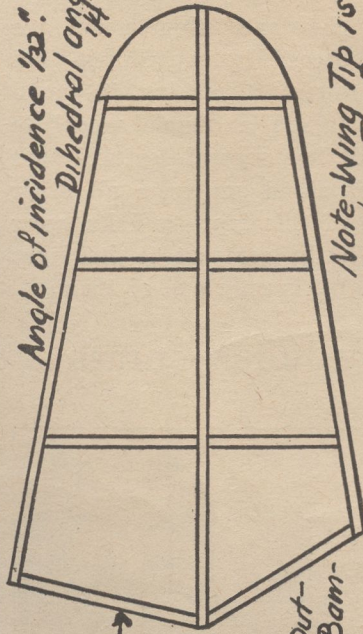


# BUILD THE FLYING ACES SPORTSTER

## "FLYING ACES" SPORTSTER

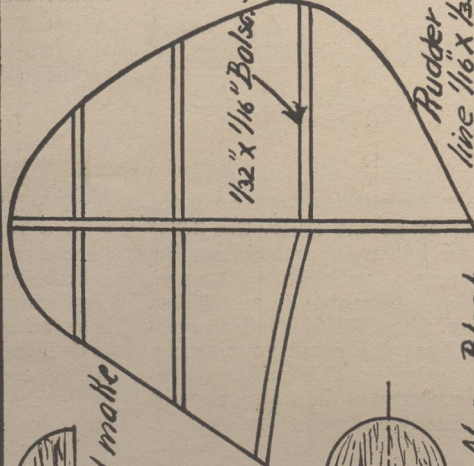
Angle of incidence  $1/32^{\circ}$   
Dihedral angle  $1/4^{\circ}$

Note-Wing Tip is  
made in two pieces.



Rudder Out-  
line  $1/16 \times 1/32$  Bam-  
boo.

$1/32 \times 1/16$  Balsa



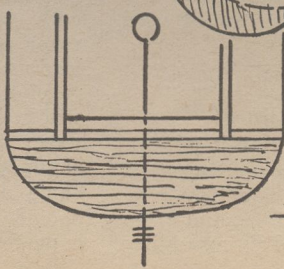
Bulkhead made  
1/16.



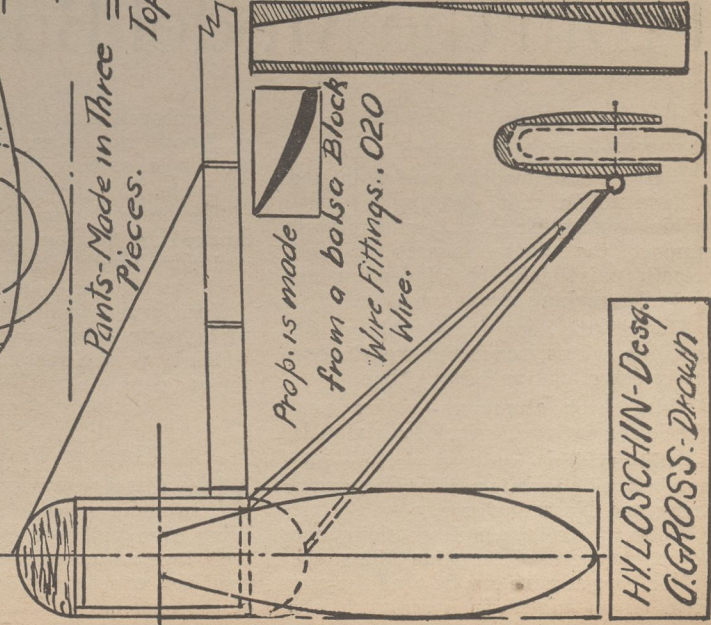
Top View-Nose Block

Paints-Made in Three  
Pieces.

Side View-Nose Block



Prop. is made  
from a balsa Block  
Wire Fittings..020  
Wire.

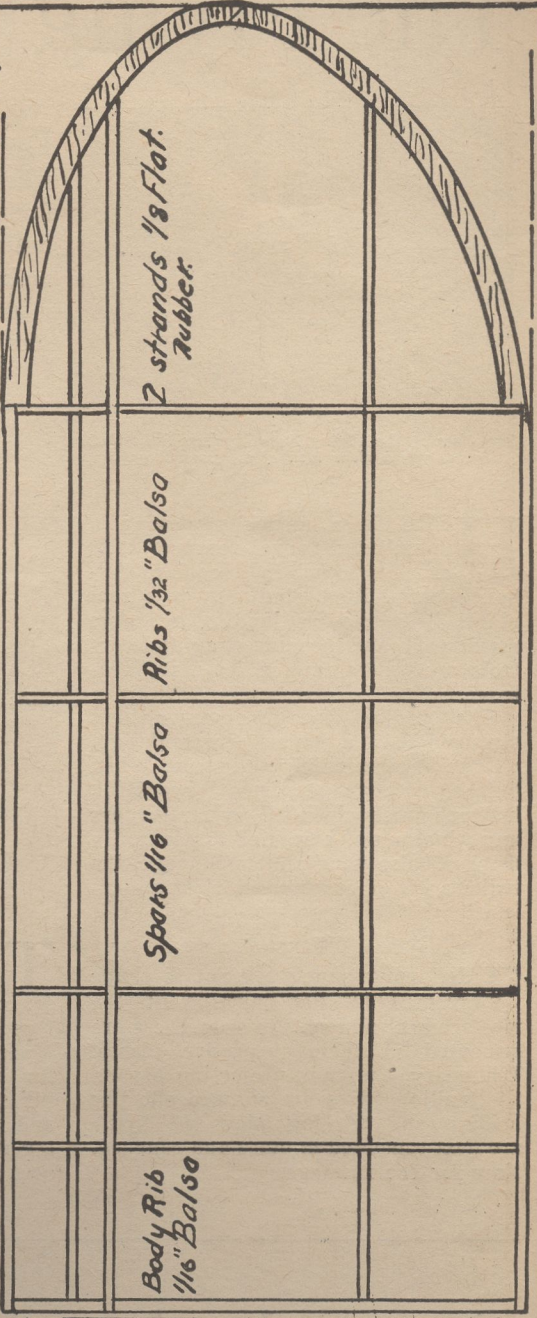


Ribs  $1/32$  Balsa

Spans  $1/16$  Balsa

Body Rib  
 $1/16$  Balsa

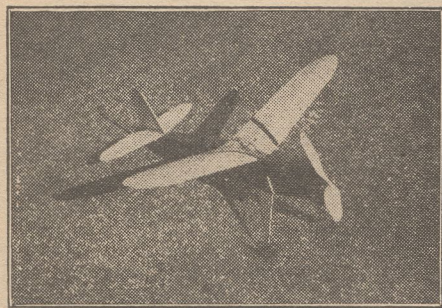
2 strands  $1/8$  Flat.  
Rubber



HYLOSCHIN-Desg.  
O.GROSS-Drawn



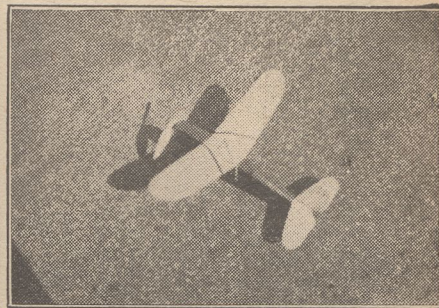
# The Flying Aces Mystery Ship



One view of the Flying Aces Mystery Ship that gives you a clear idea of its clean lines.

We've christened this model the Flying Aces Mystery Ship — but when you start making it, you'll find that it's a simple model to build. It has several features that make it stand out from all other models of this type—and its great strength, in contrast to its light weight, is only one of them.

By Julius Unrath



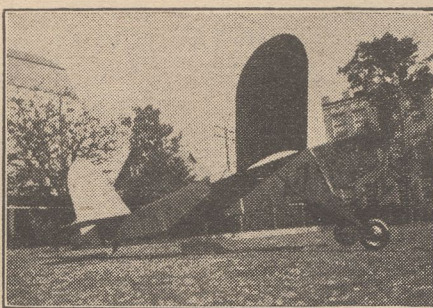
Make this model of the Flying Aces Mystery Ship of all-balsa, and you'll have a strong and unusually light ship.

**H**ERE is a model employing a number of novel features very rarely found in one ship. All-balsa construction, similarity to a real plane, indestructible landing gear, no motor-stick and movable wing and controls are just a few of the many features.

The model, though many times stronger than a paper-covered design, weighs approximately the same. When finished, it may be given a beautiful, lustrous finish which will by far surpass any which may be applied to paper. By using a balsa wing and empennage, the tedious job of cutting out ribs is abolished.

## WING

**T**HE wing panels are cut to shape from 1/32" flat balsa. Next, the ribs are bent and split to size. These are cemented in their respective places. When dry, the ends projecting beyond the trailing edges are snipped off. The leading and trailing edges (1/8" eq.) are next cemented in place and rounded. Now for the fuselage.



This snapshot of the Mystery Ship brings out one of its outstanding features—its similarity to a real plane.

## FUSELAGE

**T**HE fuselage is constructed in the same way as any other. Use 3/32" sq. balsa for longerons and braces. Before you cover it with balsa, the nose block should be cemented on and drilled for the plug. The 1/32" flat balsa covering should have the grain running up, and not lengthwise. This makes covering simpler, because the balsa may be bent more easily and put on in sections.

## EMPENNAGE AND LANDING GEAR

**T**HE tail surfaces are built in the same manner as is the wing. A 3/32" sq. leading edge is used, but no trailing edge. Where the control surfaces meet the stabilizing surfaces, a 1/16" slit should be cut.

As in the rest of my models described in FLYING ACES, the landing gear is constructed of wire faired with balsa. A flat "V" of wire is used to connect the two struts. This, in turn, is connected to the fuselage by a rubber shock-cord.

## FINISHING AND FLYING

**T**HE model is given three coats of oil dope carefully rubbed down. A final finish is plain castor oil applied with a rag and polished with a clean flannel cloth. The original model has a yellow fuselage and natural wing and empennage with black details. The wing is attached with rubber bands and adjusted for a smooth, even glide with six to eight strands of rubber. Final and more careful adjustments may be made by bending the control surfaces.

# From the Model Builder's Workbench

## MAKING MIDGET MODELS

**M**ANY model builders find it hard to give a scale model a good paint job. I have found that painting a model before assembling it and using pins to support the parts insures a neat, smooth paint job. The following are hints for making midget models.

Music wire used for dowels on assembling wings leaves the model accurately assembled and saves time.

Thin sheet aluminum makes neat wheels for one-eighth inch scale models.

Ordinary blue and red writing inks may be used on white paper to represent Army and Navy insignia.

White paste, made from flour and water, can be used for wing fillets, etc.

Thin copper wire can be used for guy wires on one-eighth inch scale models.

Cardboard sometimes used for spools of thread, can be used for cowlings and end rings, as they can be sand-papered to shape.

The best color in silver paint can be secured by mixing aluminum powder and dope, and testing it on a surface until the color is even.

For larger models, the caps from tooth paste tubes, and the parts onto which they are fastened, can be used for gas caps.

CHARLES D. DALY.

## BETTER WING RIBS

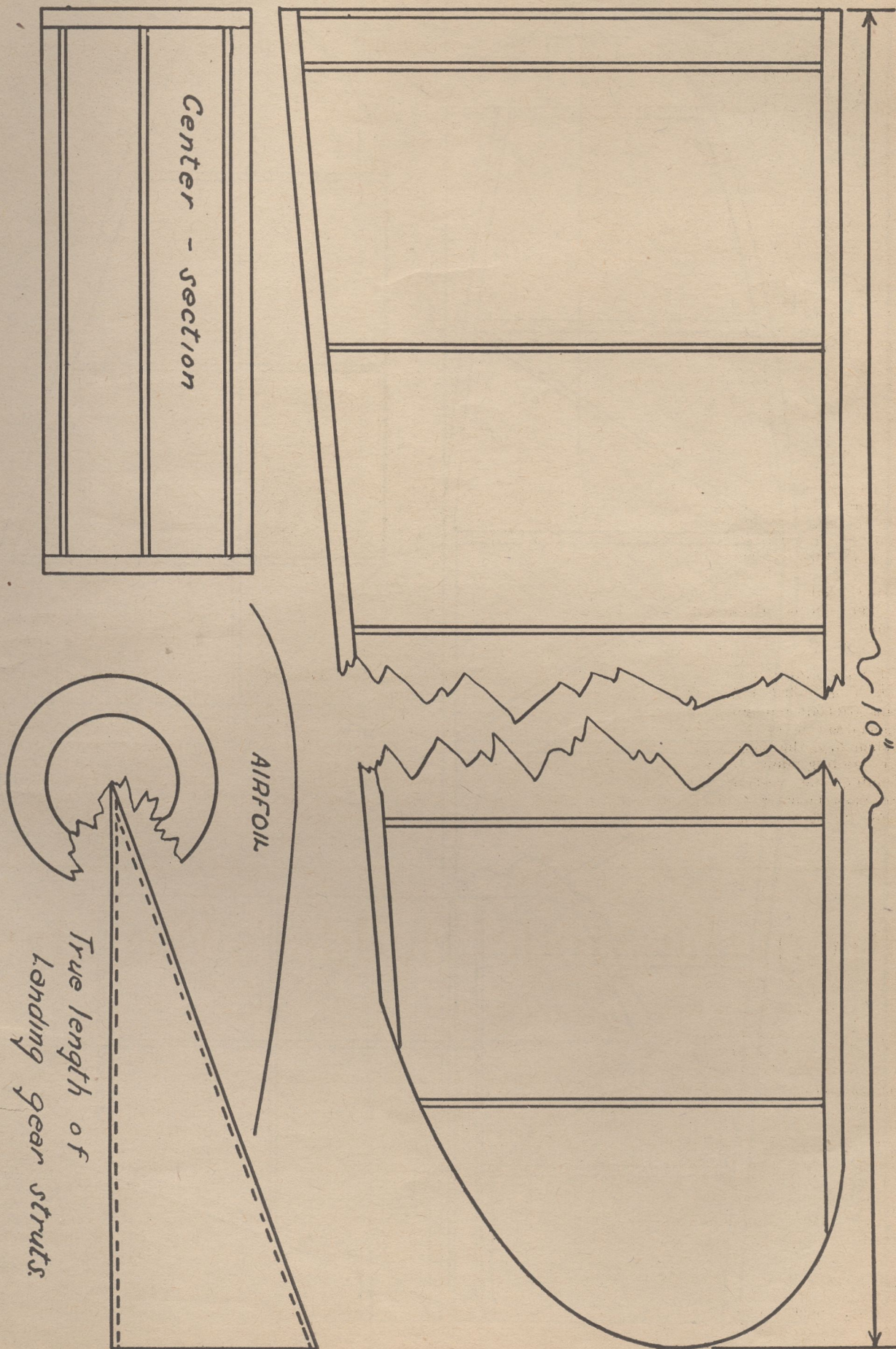
**M**ANY model builders find it difficult to make a set of good wing ribs. Wing ribs that are not identical give the wings an uneven surface, and often spoil the appearance and flying ability of the model.

By following the given directions, and by using a metal template, a good set of ribs can be made. Cut the template from tin, sheet brass, or any other desirable material. Make two small holes, one half inch from each end of the template, for the pins. Next, cut the specified number of ribs, making a few extras in case of breakage. Now pin the ribs (including the template) together, with two pins on each side. With a razor, cut the grooves for spars and leading edge. Now take a piece of flat wood about one inch wider than the width of the ribs, and use it as a sandpaper block. Use a medium grade of sandpaper. Sand until the ribs are the same as the template. Now the pins should be removed, and you will find a perfect set of ribs.

CARL MONTE.

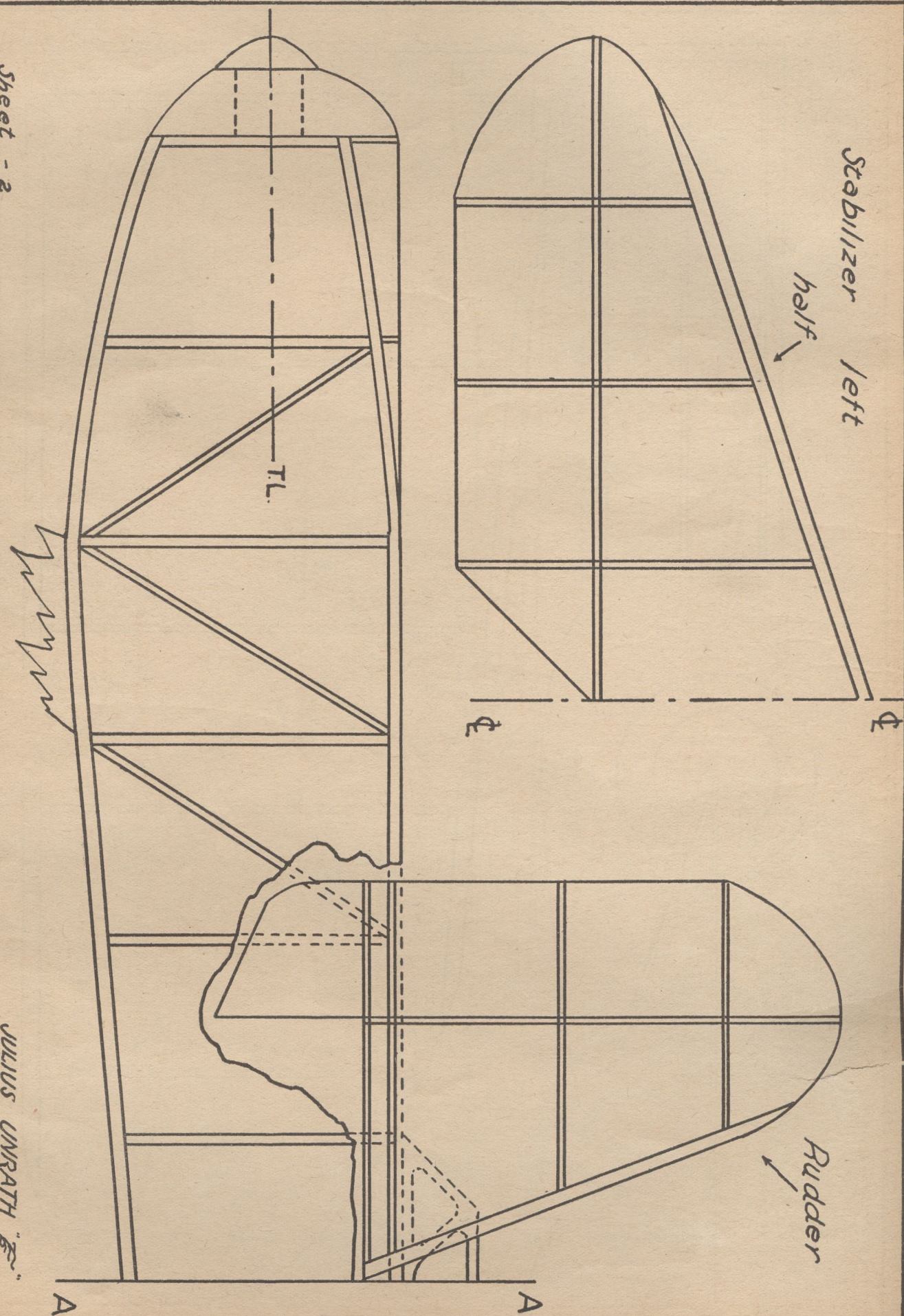


Sheet - 1





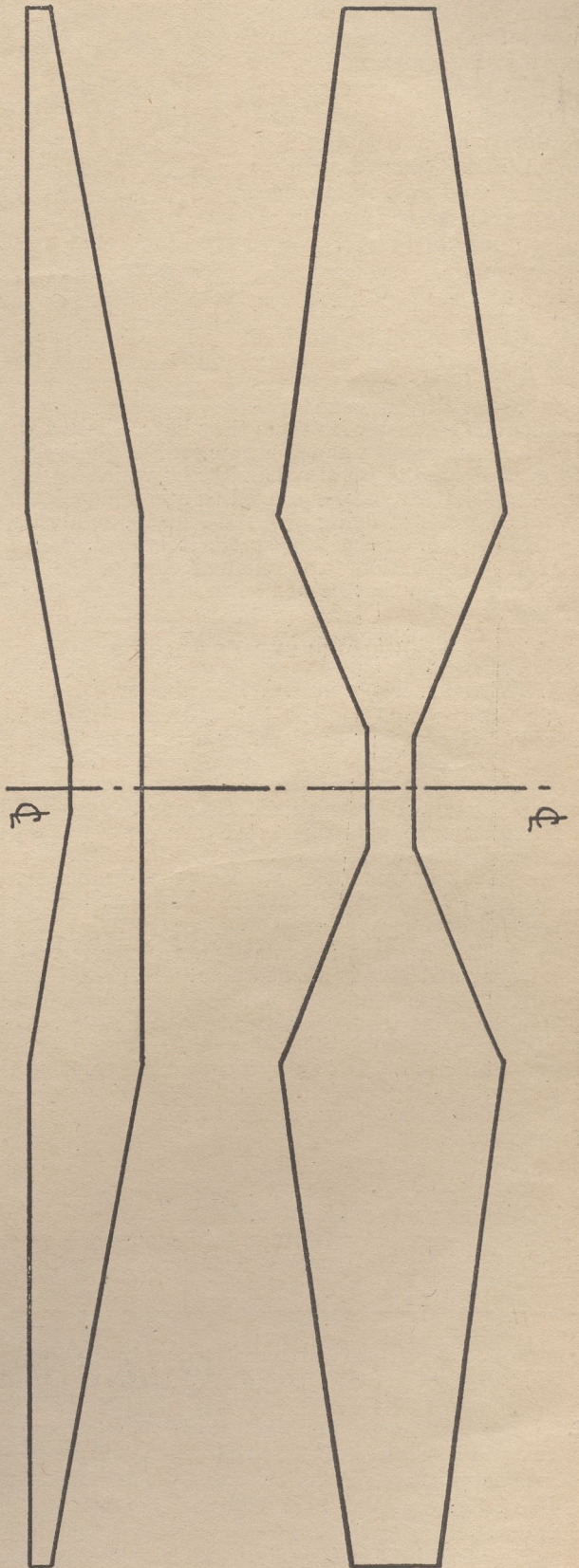
Sheet - 2



JULIUS UNRATH "E"



A

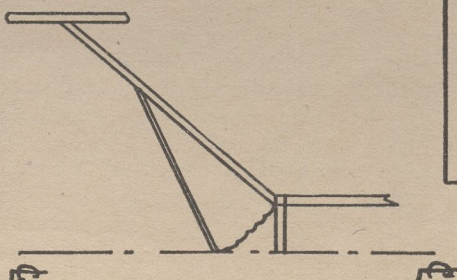
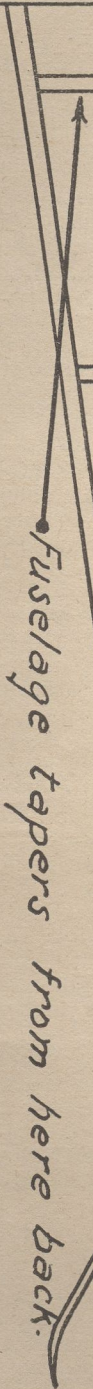


*Cabin may be built-up or hollowed-out  
soft balsa in this shape-*



*Wire*

*Fuselage tapers from here back.*



*Front view*

*of landing gear-  
NOT SCALE*

*Sheet - 3*

*JULIUS UNRATH "Z"*



# Build the DeHavilland "86"

Military planes are all the vogue these days. Here's one of the most outstanding, the De Havilland "86" used by the Imperial Airways, and equipped as a bombing job. Don't miss your chance to build a handsome solid model of this latest thing in military craft.

★ ★ ★

**M**OST model builders of today prefer building military airplanes equipped with bombs and machine guns because with them they have a better chance of winning contests and the approval of their friends. Here we have the De Havilland "86," which is used by the Imperial Airways, equipped as a bombing job. The ship is capable of doing about 150 m.p.h. at high speed and 135 m.p.h. at cruising speed, it is said.

If the instructions are followed closely, the builder will have a ship that he will be proud to show to all his friends.

## BUILDING THE FUSELAGE

**M**AKE the fuselage first. White pine or balsa may be used. I would suggest balsa. Draw the outline of the side view of the fuselage on a block of wood 11" x 1 5/8" x 1 7/8", not including the gunner's turret. (Note that drawings are half-size.) Cut around the outline with a jig saw or sharp chisel. Go over the top and bottom with coarse sandpaper, and then draw the top elevation. Whittle down the sides with a knife. Go over these newly cut surfaces with coarse sandpaper, and then begin to shape fuselage as shown at the various cross sections.

When the fuselage is completed, go over it with fine sandpaper and give it a smooth surface. You then may groove out the windows and the rear gunner's side plates, or paint them on with black paint only. To the experienced model builder I would suggest grooving them out about 1/16 of an inch deep, then painting them black and gluing celluloid over them.

Now shape the gunner's turret of soft balsa and glue it into place.

## WINGS

**T**HE wings are made of 4 different pieces of balsa, 7 5/8" x 2 1/4" x 1/4", with the grain running lengthwise. First trace the top wing on the board and cut around



*This unusually clear picture will give you a graphic idea of how your model of the De Havilland "86" will look. That is—if you build it according to the plans and directions given here!*

By Nick Limber

★ ★ ★

the outline. Taper down the wing, as shown in the front view of the model.

When that is finished, shape out the airfoil, constantly referring to the cross sections of the top wing. Make the lower wing in the same way, not heeding the very thick portion nearest the fuselage.

## MAKING THE MOTORS

**T**HE motors are traced on a soft block of balsa in the same manner as the fuselage, and are shaped as shown in the different cross sections of the motors. Upon completing this, cut the motors along the dotted lines as shown in the cross sections "M-A" and "M-E" in order to fit onto the wing.

With the motors in two separate pieces, glue them on the lower wings as shown in the front view of the model. You then place fillets between the motors and the wing. Plaster of Paris may be used as a fillet.

The next step is to make the tail units, consisting of rudder and elevators. The control surfaces may be indicated by a grooved line. The same may be done for the ailerons on the wings. The tail units are made in the same method as are the wings, and are then glued into place on the fuselage.

The landing gear is next, and may be made of three parts, as illustrated in the drawings. Wheels may be purchased at any supply house. When the landing gear is completed, it is glued in place below the two motors nearest the fuselage. Fillets are then placed between the landing gear and motors. Use fillets, also, to build up the thick on the lower wing, as shown in the diagram.

The tail wheel also may be purchased and put on the model as shown in the diagram. The top wing is glued into place and a fillet is placed between it and the fuselage. The lower wing is then glued into place. The struts are made of balsa sheet. After streamlining, they are put into their places. Propellers are made of wood, or may be bought.

Bombs are made for the model. Eighteen of them are required. Do not glue the bombs into place until the model is completely painted, as stated in the drawings. When the model is dry, you then connect the bombs on the lower wings with bamboo stringers as bomb racks. These are painted silver. Flying wires may be made of straight grain bamboo or thread.

## Questions and Answers

1. I have come upon the word "incidence" many times. Will you please explain what incidence means?—Lloyd Zuppann, Jr., Fort Williams, Maine.

The word incidence applies to the angle formed by the wing and the line of thrust of the airplane. By continuing the chord line until it meets the line of thrust, you will have the angle of incidence of the wing.

2. What is aspect ratio and how is it obtained?—Harold Kroll, New York.

Aspect ratio is the ratio of the chord to the span of the wing. It is obtained by dividing the span by the chord. The best ratio to use is an aspect ratio of 6 to 9.

3. Will airplane dope shrink the covering of a model plane as it does on a large ship?—Williams Phillips, New Jersey.

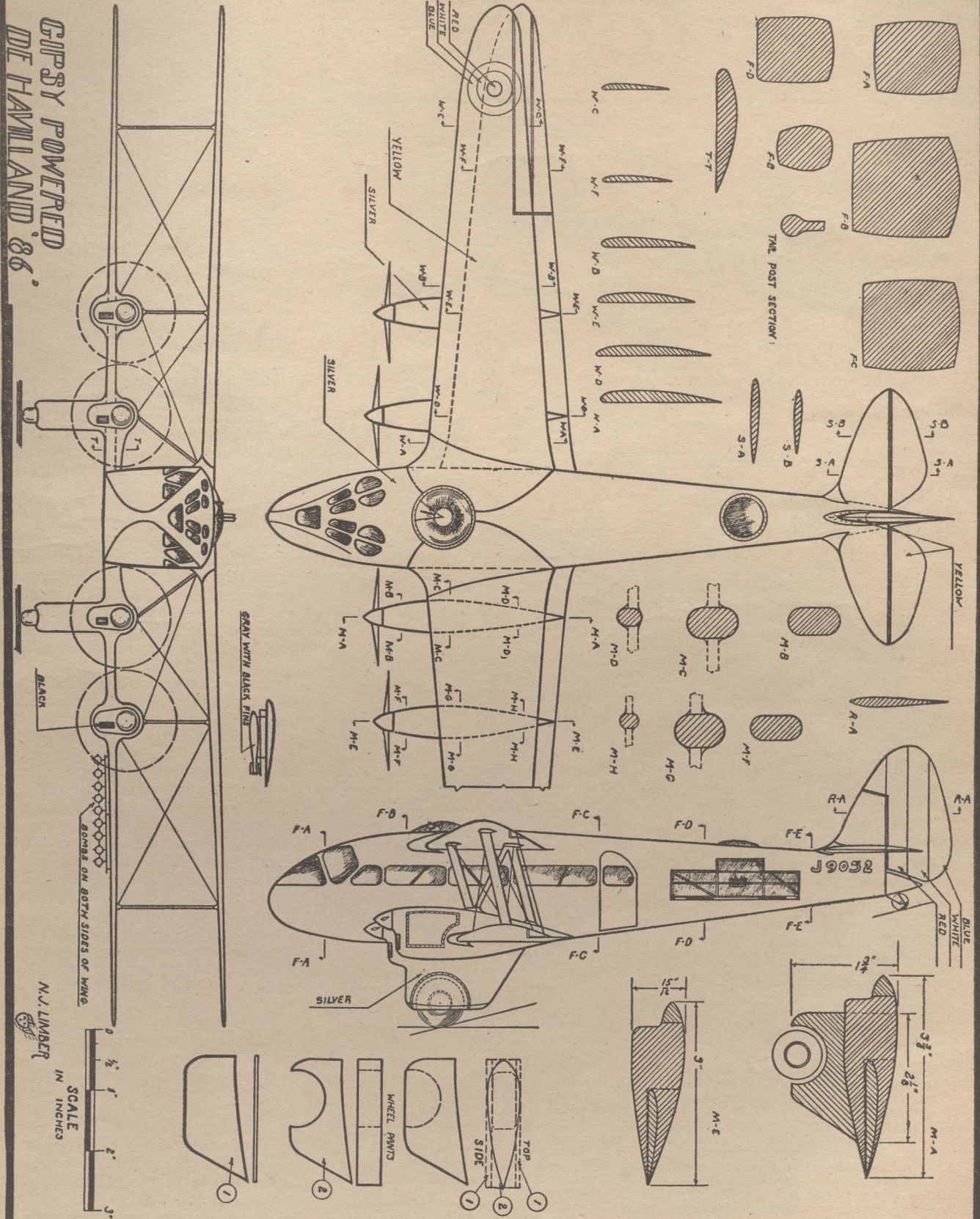
Yes, but I do not advise you to use it. The structure work of models built out of balsa will not stand the strain set up by the dope.

4. What is the best diameter to make a propeller?—Seymore Stein.

That is hard to say unless I know the type of ship you have in mind. However, I can say that the diameter should be not less than 1/3 the span of the wing and not more than 1/2.



# Build the DeHavilland "86"





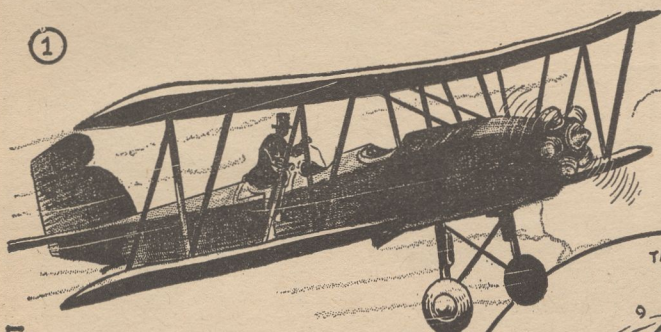
# Here and There in the Air

In this department, FLYING ACES presents some of the odds and ends of aviation—interesting facts about flyers and their foibles, news picked out of the sky here and there. We hope you like it.

## PILOTOPICS

By ROY HUMPHRIES

①



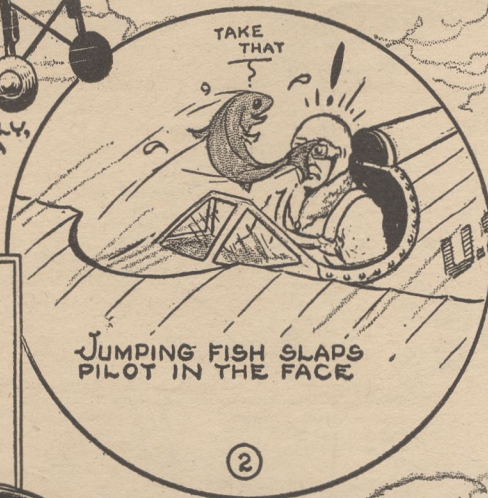
FLIGHT COMMANDER R. L. ATCHERLY, R.F.C. PILOTEED HIS PLANE FROM A SADDLE STRAPPED TO THE FUSELAGE. . . .

ROY HUMPHRIES

TAKE THAT

JUMPING FISH SLAPS PILOT IN THE FACE

②



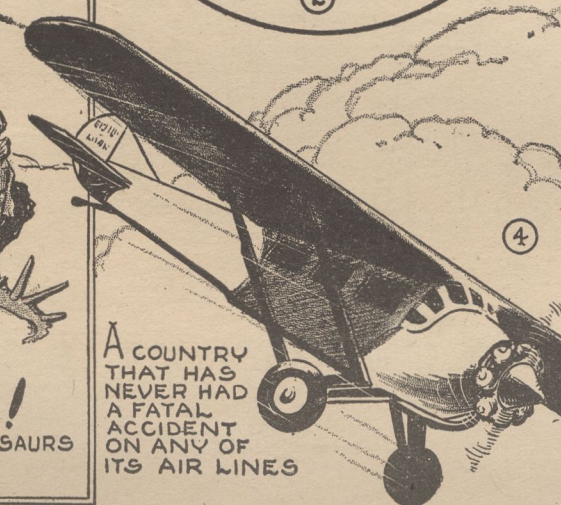
③



WHAT NEXT!  
THEY ARE HUNTING DINOSAURS BY PLANE

A COUNTRY THAT HAS NEVER HAD A FATAL ACCIDENT ON ANY OF ITS AIR LINES

④



### SHORT FLIGHTS

A national intercollegiate flying club was recently organized in Washington to coordinate existing aviation activities in 150 American colleges and universities . . . . The Army's air fleet will be increased by 300 planes in 1935 . . . . The Navy Department is considering making it compulsory for all future naval officers to be qualified as flyers . . . . A complete motion picture film of the finish of the London-Melbourne air race was sent to London by radio transmission . . . . Russia now claims the record for the longest non-stop flight. A plane, all-Soviet in design and materials, recently covered 7,707 miles in 75 hours.

An American inventor has recently perfected an automatic machine which produces airplane propellers not only faster than any other machine so far developed but at the same time does this with astonishing perfection. In small plants, propellers have to be made laboriously by hand. By introducing automatic machines which will exactly copy any design, and do it quickly in unlimited numbers, the air world is ready to make another decided advance . . . A one-month test of weather information given on the transcontinental route of one of the leading transport companies of the United States showed an accuracy of 98.3 per cent . . . It is reported that Russia is building a two-and-one-half-ton glider capable of carrying 13 passengers.

Private flying has shown a remarkable growth in the last four years. During the first year of ownership, the number of average hours flown by the private flyer has increased from 175 to 700. The private airman of today does not wait for a sunshiny day to do his flying, night and blind flying equipment having become quite a common part of the individually owned plane . . . Captain Eddie Rickenbacker, war ace, predicts that the distance between London and New York will soon be only a 10-hour hop by plane.

The longest over-water route in the world is Pan-American Airway's trans-Caribbean service of 502 miles, but it will soon be pushed into second place by the 512-mile crossing of the Timor Sea which will be included in the new England-Australia run soon to be established by the Imperial Airways . . . Although China's air strength was very, very low in 1931, that nation now has a modern fighting fleet of 500 planes. Three hundred of the ships are owned by the Nanking government, and the rest are distributed among the provincial governments and the various war lords . . . There are 11,580 airplanes in service in the United States—504 commercial, 2,800 military, and 8,276 private.

### Stories Back of the Above Pictures

1—The spectators at the National Air Races at Cleveland were treated to a thrill by Flight Commander R. L. Atcherly, of Great Britain's Flying Corps, when he strapped a saddle to the fuselage of his plane and proceeded to pilot it from there.

2—The unusual indignity of being slapped in the face by a fish occurred to one of Uncle Sam's Navy pilots when he prepared to make a landing during maneuvers off the Hawaiian Islands. The fish leaped high out of the water into the slipstream of the descending plane and was wafted rudely into the face of the surprised pilot.

3—Dr. Barnum Brown, of the American Museum of Natural History, announced recently that it was the plan of his expedition to fly over 12,000 miles on a dinosaur hunt. The expedition does not expect to sight dinosaur bones from the air, but will be able to determine fossil-bearing strata at heights of from 2,000 to 3,000 feet.

4—Much has been written in favor of new safety devices for planes, new safety laws governing air travel, etc. The answer may be found in that Poland has the enviable record of never having had a fatal accident.



# Citation and Awards of the Flying Aces Club

The Distinguished Service Medal of the Flying Aces Club has been awarded to the following members of G-2 for exceptional services to the club:

Ronald Smith	John Kendall
Russell Griffith	Buster Mason
Robert Hatcher	Dimmy Waterman
John W. Rankin	George Martin
Jack W. Staff	Donald Jodoin
Arthur Ashley	Warren Huffman
Philip Brown	Abraham Malin
Bill Cooper	Sol Edwards
Wayne Grant	Robert Sadoff
Gene Jordan	Forrest Wilson
William Wetherald	Buster French
Stanley Rudee	Richard Dodd
Charles Nonton	Paul W. Landrock
Billy Cassidy	Robert L. Hunt
	Harold Nightlinger

The following winners of the Distinguished Service Medal of the Flying Aces Club have been given the first award of the bronze props for additional services to the club:

Leonard Robinson	Charles Brema
Louis Attina	George Willhauck
Keith F. Jones	Charles Pelant
Jere Seilhamer	Harry Leach
Elias Klele	John Schaffer
Henry Schab	L. K. Haywood
Cornelius Vandecar	Robert Wigger
Lynn C. Foxworthy	W. J. Tallon
John Buchinsky	Roy McBride

The following winners of the first award of the bronze props have been given the second award of the bronze props for additional services to the club:

Lutz Flynn	William Stewart
Paul Guerrero	Walter Smith
Walter Anner	Eugene Mulcahy
Bradley Kohr	Alfred Szulinski
Helen Greene	Robert A. Blocki
Paul Podany	Robert White
Albert Kirschner	Martin Schatzer
William Patterson	Charles Kandigian
Anthony Konseavage	Leo La Riviere
William Clay	Charles Hoelle
George Kopta	Robert Schefke
Willard Lidgard	Francis Lafferty
Edgar Drake	

The following members of G-2 have been cited by the Flying Aces Club for exceptional services to the club and are being considered for the Distinguished Service Medal:

Michael A. Wyzga	George Smith
David Hall	Billie Melvin
Robert Lee	Edward Kalb
Jack Keller	William Larkins
Charles Bressi	David Henriques
George Hartley	Douglas Green
Julius Blum	Stephen Yamalides
Bill Broughton	Henry Jorda
Buddy Cornett	Fred A. Dragone
Arthur Warren	Bob Hofmann
Bob Stockhausen	Daryle Messner
Parnell McKenna, Jr.	E. H. Wagner
Fred Merkel	Irving Swartz
Joseph Cordes	John McKillip
Edwin Errett, Jr.	Sally Ford
Ed Baggs	Mary Graef
John D. Roy	Don Starr

# JOIN THE FLYING ACES CLUB

No Dues! Easy to Join! Organize Your Own Squadron!

TO advance the cause of aviation, over 35,000 men and women, boys and girls, have banded together to form the Flying Aces Club. It's easy to become a regular member. Fill in and mail the application coupon at the bottom of this page with a stamped, self-addressed envelope for the return of your Official Membership Card in the largest aviation club in the world.

It costs nothing, no dues. After becoming a member, you will be all set to win your Cadet Wings, Pilot Wings, Ace's Star and, perhaps, the Distinguished Service Medal. *Take the first step now. Fill out and mail the Membership Application Coupon.*

You will find it easy to start an F.A.C. Flight or Squadron. Tell your friends and acquaintances about the F.A.C. and its official magazine, FLYING ACES. Ask them to get a copy of FLYING ACES. Ask them to join the famous F.A.C. Counting yourself, it takes a minimum of six members to form a Flight, eighteen for a Squadron. *To become a member, each applicant must fill out and mail to G.H.Q. the application coupon.* Be sure, when writing to Headquarters, to enclose a stamped, self-addressed envelope for your reply. This is important.

## Honorary Members

President and Mrs. Franklin D. Roosevelt	
Casey Jones	Rear-Admiral Byrd
Wiley Post	Capt. Edward Rickenbacker
Al Williams	Colonel W. A. Bishop
Col. Scaroni	Major G. A. Vaughn, Jr.
Gov. Gifford Pinchot	Mrs. Gifford Pinchot
Major von Schleich	Willy Coppens
Lieut.-Col. Pinsard	General Balbo
C. E. Kingsford-Smith	Josef Veltjens
G. M. Bellanca	Amelia Earhart Putnam
Capt. Boris Sergievsky	Senator David I. Walsh
Colonel Roscoe Turner	Lowell Thomas
Lieut.-Col. Theodore Roosevelt	

## AWARDS AND HONORS

### The D.S.M.

The Flying Aces Club Distinguished Service Medal is the highest award of the Club and is given to those whose work on behalf of the F.A.C. is "beyond and above the call of duty." It has been awarded for obtaining prominent men and women as Honorary Members, for exceptionally successful activity in the promotion of the Club, for outstanding work in covering the secret assignments of G-2.

Winners of the D.S.M. who merit further awards will be given beautiful bronze props. Worn on the ribbon of the D.S.M., they may be compared to the bronze palms awarded to winners of the Croix de Guerre. The highest award of the F.A.C. is the D.S.M. with three props.

### The Ace's Star

The Ace's Star is awarded to regular members of the F.A.C. who have qualified for their Cadet and Pilot Wings and who have succeeded in enrolling five new members in the Flying Aces Club. Each new member must fill out the Application Coupon below. Get five of your friends to do this, send in their applications all together and win the F.A.C. Ace's Star.

## Official Charters

F.A.C. Flights and Squadrons are recognized only when they have been awarded Official Charters. These Charters are illustrated to depict the various steps of advancement in aviation, and the wording is in keeping with the high ideals and purposes of the Club. They are printed on a very fine grade of paper and the names of the Squadrons are hand-lettered. Charter applications must always be accompanied by a complete list of members with their addresses. For the Flight Charter send 25c, for the Squadron Charter 50c, to cover costs.

## Volunteers for G-2

G-2, the Inner Circle of the F.A.C., is open to a restricted number of members who are qualified for Secret Service activities. Those who are chosen will have unusual opportunities to win the Club's Distinguished Service Medal. Those who are accepted will be given a secret number and identification card as well as the secret code. Assignments will be made by letter and code.



COUPON  
No. 25

## Save This Coupon for PILOT'S WINGS of the Flying Aces Club

All enrolled members who have already won their Cadet Wings are eligible for Pilot's Wings. This coupon, with four other similar coupons from any other four issues of FLYING ACES Magazine and 10c, entitles Cadets of the F.A.C. to Pilot's Wings. Do not send in this coupon alone. Save it until you have five of them. Then send them in all together with a self-addressed envelope and 10c to cover cost of wrapping and mailing. Only one pair of Wings to a member. If you lose yours, send 25c for new ones.

Canadians send International Reply Coupon for 15c. British send one shilling in coin or International Reply Coupon for one shilling.

COUPON  
No. 28



## Save This Coupon for CADET WINGS of the Flying Aces Club

All members who have Official Membership Cards are eligible for Cadet Wings. This coupon, with two other similar coupons from any other two issues of FLYING ACES Magazine and 10c, entitles members of the F.A.C. to Cadet Wings. Do not send in this coupon alone. Save it until you have three of them. Then send them in all together with a self-addressed envelope and 10c to cover cost of wrapping and mailing. Only one pair of Wings to a member. If you lose yours, send 25c for new ones.

Canadians send International Reply Coupon for 15c. British send one shilling in coin or International Reply Coupon for one shilling.

## March Application for F. A. C. Membership

I, the undersigned, hereby make application for membership in the Flying Aces Club. I agree to live up to its rules and regulations; to foster the growth and development of aviation; and cooperate with all other members in the work of spreading aviation information, building up confidence in flying for national defence and transportation. I will aim to build up the Club and its membership, and do my best to win the honors that the Flying Aces Club offers.

My name is .....

Age .....

Street .....

City ..... State .....

Mail this application, and with it, enclose a self-addressed, stamped envelope. Canadians send an International Reply Coupon worth 5c. British send an international coupon worth sixpence.

**FLYING ACES CLUB—67 W. 44th St., New York City**



# Flying Aces Club News

Big news for you this month, F.A.C.'s! First of all, we want to introduce a new honorary member, who needs no introduction to any of you, we feel sure. He is none other than Jackie Cooper, famous Metro-Goldwyn-Mayer film star, and a keen reader of FLYING ACES Magazine. We'll also share with you news from F.A.C. Squadrons who are on their toes all over the country. Let's go!

**R**OLL your planes into the Flying Aces Club hangar, F.A.C.'s, and listen to a lot of big news. Did you know that in this country and abroad there are over fifty thousand members of this club—fifty thousand men and women, boys and girls, who, like yourselves, are working to further the cause of aviation through the Flying Aces Club and the FLYING ACES Magazine? That's a thought to spur you on—and here's another. Let's make it a hundred thousand!

But what you're probably interested in right now is our latest honorary member, whose picture on this page you will all recognize. Yes, he's none other than Jackie Cooper, famous Metro-Goldwyn-Mayer film star, whom you have all grown to love from his first smash hit in "Skippy" to his last smash hit (at this writing) in "Treasure Island." None of you who saw him in either of these pictures or in his great rôle with Wallace Beery in "The Champ" will ever forget him. And take a look at that picture. See what he's reading? Yes, Jackie is not only a great actor—he's a boy who knows a great air magazine when he sees one. Listen to what he says in the letter that came with his picture:

"I am glad to join the Flying Aces Club, for I've read your magazine for a long time, and think it's keen. I always keep one on the set when I'm making a picture, so that I can read it between shooting scenes. One time when we were making 'Treasure Island', I couldn't find my copy anywhere. We looked all over the lot for it, and after a long hunt, we found it. Wallace Beery had taken my FLYING ACES and was sitting in a corner of the studio, reading one of the stories. He's a great guy, and a flyer, too. Has his own plane, and flies everywhere in it, clear to New York from Hollywood. Maybe I'll be doing that some day.

"I wish the club a lot of luck, and wish I could meet all you fellows.

(Signed) JACKIE COOPER."

Thanks for the picture and the letter, Jackie. We're sure glad to have you with us in the club.

Now for some news from Flying Aces Club Squadrons who are on their toes all over the country. Lieutenant Bill Tallon, leader of a Chicago, Ill., Squadron, sends in thanks for the Distin-

## Would You be Interested in Getting an F.A.C. Uniform?

Quite a large number of inquiries have been received at National Headquarters about an F.A.C. uniform. We will be glad to adopt an official uniform if enough of you fellows want them. If you are interested, drop a line to the National Adjutant of the Flying Aces Club at 67 W. 44th Street, New York City. Be sure to enclose a stamped, addressed envelope for a reply. Tell him what kind of a uniform you would like and how much you would be willing to pay for it.



We don't need to tell you who this is! Yes, Jackie Cooper, famous M.G.M. film star—and he's looking mighty pleased with his copy of FLYING ACES, your own air magazine.

guished Service Medal which he won through his energetic efforts for the club, and tells us that his members are building a complete miniature model of a modern airport, to be exhibited in a public place in Chicago. At the exhibition, various members of the Squadron will be on hand to explain the technical details of the model to those interested. That's a great idea, and we know there will be a lot of people interested. Send us a snapshot of your model airport when it's finished, won't you? We'd like to print it in the magazine.

And say, here's another idea. Joseph Von Waldron, G-2 member and head of a San Francisco Squadron, tells us that every member of his outfit buys a copy of FLYING ACES each month. If any member fails to do this, he is suspended for a stated length of time. We hope, and we feel sure, that no members of the San Francisco Squadron are ever suspended.

This meeting will have to break up soon, so we have time for just a brief word from two of our biggest and most famous Squadrons. Colonel "Chuck" Davis, divisional commander of the F.A.C.'s of eastern Pennsylvania, reports that a glider flight has been organized in Easton, Pa., with headquarters in the Y.M.C.A. Building there. Other flights are being organized in Wilkes-Barre, Catasauqua and Terre Hill, and a new Squadron has been formed in Roseto, Pa. That's work—and success—for you!

From Major Guerrero, the energetic leader of Philippine Squadrons, comes news of two new honorary members—Tomás Earnshaw, Major of Manila, the Philippines, and Captain L. R. Maughan, Acting Chief of Aeronautics.

## Airmail Pals

The department for all of you who want to swap letters with other F.A.C.s. All requests for Airmail Pals must be written on a separate sheet of paper, and will be printed in the order received.

### Who'll Fly Up His Way?

Dear C. O.:

I have a sailboat that I use very frequently. What I do with it may interest other flying fans. When sea planes fly up the Fall River, I get out in my boat, hoping the plane will settle so that I can talk to the pilot, and look over the ship at close range. I would be very happy if at any time an F.A.C. flyer happens to be over Fall River, he will fly up the Taunton River to Somerset and pay me a visit. Of course any other sailboat fans will be more than welcome to my tarmac—as well as model builders and pilots of all kinds.

Aeronautically yours,

RINER "SPUD" LINGLEY.

385 Main St., Somerset, Mass.

### A Boeing Defender

Dear C. O.:

My chief interests are making detailed scale models and taking photographs. I have over 230 photos of modern and war planes which I would like to trade for other photos and plans. I am sixteen, and intend to become an Army airman.

And did I hear some one say that the Boeing P26-A's are not fast? If you ever went out to March Field and saw about a hundred of them, all striped, performing, you would shut up like a clam. They are wonderfully fast.

Sincerely yours,

EDWARD C. MCCOLLON.

909 Newport Ave., Long Beach, California.

### An Old Friend Returns

Dear C.O.:

Some time ago, you once did me a very good turn by welcoming me to your tarmac, and publishing a letter of mine asking for letters. Thanks to you, I made many friends, a number in the U.S.A. Then I traveled about a bit, and gradually lost track of many of them. Will you please help me again by publishing this letter, which I send in the great hope that my old friend "Buddy" will see it, and write to me again. He is Mr. Walter Reinsmith, of 1105 School St., Freeland, Pa. Or perhaps a friend of his, Miss Mary Lou Bickle, of 1037 Second St., Huntington, Indiana, will see it and let him know I want to get in touch with him again.

In closing, I would like to tell you how eagerly FLYING ACES and SKY BIRDS, too, are snapped up in London. You'd be surprised at the great number of regular readers you have over here. And once again, I pen my request for letters from American boys and girls.

Wishing you all the best,

CHARLES F. NORD.

36 Gibson Gardens, London N.16, England.

### A Two-Seater Letter

Dear C.O.:

We are a couple of ink-slingers, and we want to hear from other boys and girls. Model builders, model photographers, or any kind of aeronauts will be welcome. We are model builders ourselves, and take quite a few snapshots of them. We are willing to trade these snapshots with anybody who writes us, and we offer a model prize to the first one we hear from.

The Devil's Duet,

JIM WOMMACK, and ROY FENNELL.

24 Wrightsville Ave., Wilmington, N. C.

### A Fleet of Models

Dear C.O.:

I am fifteen years old, and have been building only solid scale models for the past three years. I have a fleet of 15 ships, ranging from 4" to 15", and my favorite plane is the Curtiss Goshawk. I am also a stamp collector (only U.S. stamps) and would like to hear from anyone else interested in either of these hobbies.

LOUIS GOLDBERG.

933 Everett St., Los Angeles, Cal.

## Winners of Missing Words Contest No. 9

First Prize — VINCENT CAVALARO, Perth Amboy, N. J. Second Prize — DON DACKINS, Portland, Oregon. And Three Prizes—DAVID W. PESSAGNO, Baltimore, Md., PAUL W. BAKER, Fort Worth, Tex., and EBEN PAUL, San Francisco, Calif.

This contest appeared in the January FLYING ACES



# All Questions Answered

This section of FLYING ACES is at your service, F.A.C.'s. Send in your questions and requests for air information, and we will be glad to answer them here in the order received.

**T. Azzarro, Brighton, England:**—Thanks for the nice letter on our magazine. Yes, the decoration citation you read of in that 1918 book was mine. I'll tell you all about it some day—but not here, thank you. The accident you mentioned occurred several times on the Western Front, too.

**Hans H. Vitch, Evansville, Indiana:**—The address of Herman Klose is Truflight Model Airplane Co. Inc., 73 First Avenue, Stratford, Conn. I am sure he will be delighted to hear from you, if you are an old friend.

**V. Rigsby, San Augustine, Texas:**—Thanks for the photographs on that gun. Would be glad to hear more from you on it if you have further information. I would like to do a more complete and detailed drawing on it next time.

**Robert Hadzor, Homestead, Pa.:**—Voss was shot down by Rhys-Davids of No. 56 Squadron, R.F.C. Aircraft-carrier pilots have to go through the complete Navy Aviation course and then take special training for carrier work.

**Stanley Nazimowitz, Brooklyn:**—The Camel went into service early in 1917. Ball was credited with 43 victories.

**Lee C. Scott, New Lenox, Ill.:**—There is no stipulation on education for a private pilot's license. I do not know where you could get a copy of Jane's 1919 "All the World's Aircraft." They are at a premium now.

**J. L. Murray, London, England:**—Many thanks for the Hendon air pageant program. We appreciate it greatly and got much information from it. We will print a picture of the Navy racer in a short time.

**Joe Prather, Los Angeles:**—Voss is credited with 48 victories. Glad you like FLYING ACES so well. Try SKY BIRDS, too.

**Jimmy Wommack, Wilmington, N. C.:**—No, Eaglerock did not make planes during the war. Harmon C. Rorison is credited with three victories and was awarded the Distinguished Service Cross.

**Harold D. Kuzer, Newark:**—Thanks for the clipping. I saw the movie you speak about some time ago. Of course it was supposed to be funny, so I did not take much notice of the mistakes in ships. The bomber involved was a fixed-up Curtiss "Condor."

**Edwain De La Roi, Bloomfield, Neb.:**—The Snipe was much faster than the Spad.

**J. B. Catlett, Moundsville, W. Va.:**—There is no way of comparing the price of wartime and modern fighting ships, for in both cases they were purchased in large numbers and for a contracted sum.

**George Babinsky, Houston, Pa.:**—The Do X is out of service somewhere at Friedrichshafen in Germany. They are still trying to sell it to some government. The fastest bomber in the U. S. is the new Martin, which does over 200 m.p.h.

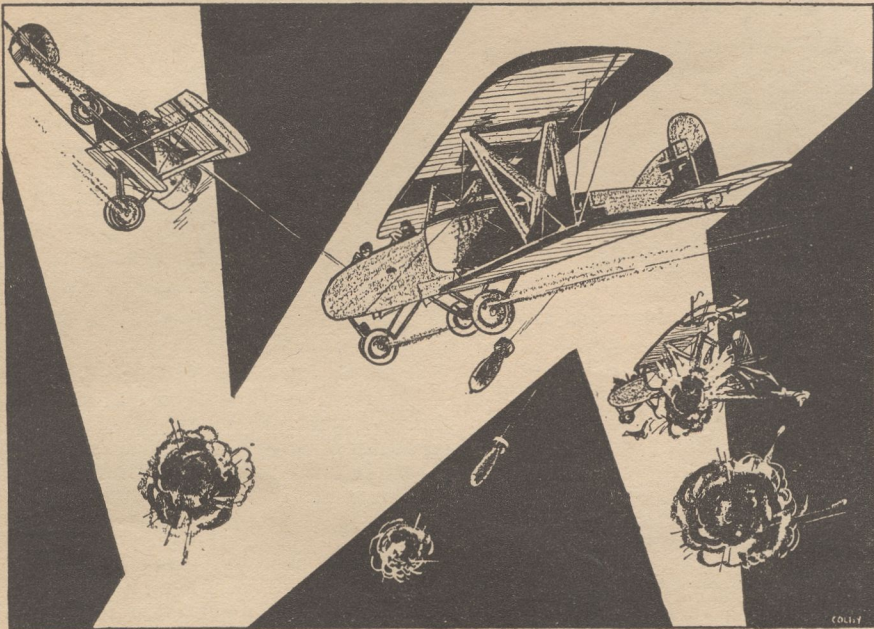
By ARCH WHITEHOUSE.

In order not to keep you waiting so long for Airmail Pals, we are printing here a list of those who want to hear from other F.A.C.'s. We are sorry that we do not have space to print the entire letters, but the right-hand column will give you an idea of the writers' interests.

Name	Address	Description
EDGAR RUMPF	146 Crescent Ave., New Brighton, Staten Island, N. Y.	A crack shot with a .22 rifle.
RAYMOND W. WEBER	663 East 235 Street, Bronx, N. Y.	Would like to hear from England.
DESMOND MACDONALD	366 Wiley St., Port Arthur, Canada.	F. A. C. cadets in Port Arthur, please write.
ARTHUR LANTNER	67 Putnam St., Providence, Rhode Island.	Offers wide choice in model plan swaps.
H. GLASNER, JR.	Walnut St., Montvale, N. J.	Likes the ladies.
ALVIN BLAKE	1314 N. LaSalle St., Chicago, Ill.	13. Young, but eager to learn.
DONNY KONSKI	440 West 24th St., N. Y. C.	14. Young, too. Intends flying to Mars. You two get together.
DON AUGSBURY	23 Effey St., Santa Cruz, California.	Will outline his course in aviation taken in Pasadena.
GORDON VAN RIPER	2123 Wroxtton Rd., Houston, Texas.	Can answer questions on airports.
WILLIAM KUNE, JR.	2416 So. Garnet St., Philadelphia, Pa.	13. Fledgling now, but a future flying "Salt."
DAN MCGUIRE	915 Huntington Ave., Jonesboro, Arkansas.	14. A FLYING ACES veteran—and aren't we all?
CHARLES BENNETT	47 Judson St., Dorchester, Boston, Mass.	Knows wartime ace.
MAC W. WILLIAMS	The Compasses, Great Totham, Near Maldon, Essex, England.	Will give you pointers on European aviation.
JOHN JACOBY	1933 Fairview St., Easton, Pa.	Wants to swap plane plans.
BOBBIE YOUNG	"Sunnyside," R. F. D. No. 2, Charlottesville, Va.	Has models of famous planes.
BEN DRIVER	Base Line Ave., Claremont, California.	Builds not only models, but carriers and hangars, too.
THAD GRUDZIEN	Box 155, R. No. 3, Stevens Pt., Wisconsin.	20. Another one for the Army Air Corps.
DONALD SUMPTER	R. R. No. 7, Dayton, Ohio.	A "shut-in", and a good sport.
JOHN EDGE	140 E. Orange St., Lancaster, Pa.	Write to him, F.A.C.'s.
EMIL CIRULNICK	65-31 Woodside Ave., Woodside, N. Y.	Will some G.B. fan tell him about modern English planes?
		Traveller, but wants friends on home tarmac.



## MISSING WORDS CONTEST, No. 11



## Win a Flying Scale Model of the NORTHROP GAMMA VICTORIA

In Missing Words Contest No. 11

### FIVE PRIZES

**First**—Flying scale model of the Northrop Gamma Victoria, one of today's outstanding ships.

**Second**—Regulation flying helmet and goggles.

**And Three Prizes**—Kit for Sopwith Camel model—guaranteed to fly.

### To Win This Contest:

In the above picture the artist has told a story—and the same story is told in words below. Some of the words have been left out—for example, Albatross bombers is the word missing from the first line of the story. What you should do to win this contest is fill in all the missing words to fit the picture above. Send us the list of missing words, in their correct order, with a letter telling us whether you prefer as the first story in the magazine a "Philip Strange" or a modern air story, and why.

### Here's the Story:

The German High Command had sent over two .....  
in an effort to bomb an important point behind the .....  
Unknown to them, this point was guarded by a lone .....  
in a speedy and well-armed Sopwith .....  
The two German ships approached the point under cover of .....  
and made ready to unload their large cargo of .....  
Suddenly the skies were pierced by three huge .....  
whose beams darted here and there, searching for the .....  
At the same time, a battery of .....  
went into action, filling the skies above with .....  
from the exploding shells. The pilot of the leading .....  
gave the signal to drop the bombs and .....  
had already left their racks when from .....  
dropped the little Allied ship, firing .....  
from its twin guns. So surprised was the .....  
of the bomber that they paused in their .....  
to try and protect themselves from the attack of the .....  
whose bullets were even then entering the nose of their .....  
At the same moment, one of the batteries of .....  
scored a direct hit on the lower wing of the other .....  
before they had a chance to drop a single death-dealing .....  
The pilot of the single-seater pulled back on the .....  
and rose in a sharp zoom, his bullets slicing up the .....  
of the remaining bomber, taking care of the two .....  
in the nose cockpits, saving the point from both .....

### Don't Forget:

The winners of the contest will be judged by the correctness of their list of missing words and by their letters. All decisions by the judges will be final.

Be sure to mention in your letter the name and number of this contest, and the issue in which it appears. All answers on Missing Words Contest No. 11 must be mailed by the time the next issue of FLYING ACES is on sale. Send to

Missing Words Contest No. 11

FLYING ACES Magazine

67 West 44th St.

New York, N. Y.

## Raid of the Red Reaper

(Continued from page 6)

crashed through the Spad's left wing. Strange slipped hastily, and the smoking tracers hammered away from his pit. Glass splintered, and the fumes of alcohol told him his compass was gone. Controls crossed, he dropped out of that deadly blast. More searchlights were slashing the sky. He slid through one beam, eyes closed, and pulled up in the semi-gloom beyond.

The Albatross howled past him, racing toward the great boulevard. Strange flung around to follow. A gray wing tip lunged through a shifting light beam. He saw André fighting to control his wobbling ship. The Frenchman jabbed one hand wildly toward the diving Albatross. Strange tossed him a swift gesture and pitched after the Boche.

The Hispano was full out, but the two-seater was increasing the gap. Suddenly he realized why. That odd look about the German plane's nose—there was a Hispano 300 pulling that ship, an engine from some captured Allied plane, intended to trick the French sound-rangers.

The racing arrow of flame had died out, down on the Champs Elysees, but the searchlights made the scene easily visible. Archie was crashing from a dozen directions at the hurtling two-seater. In the streets below, crowds were surging—some trying to get under cover, others swarming toward the boulevard. It was odd, Strange thought, that there were no defense ships in the sky.

French batteries were blazing from the roof of the Marine Ministry, and atop the *Chambre des Deputés* across the Seine. The Albatross dropped precipitously, and for a second Strange thought it had been hit. Then, just above the Tuileries, it swiftly leveled out. At terrific speed, it raced over the great obelisk and between the two parks on the side of the boulevard.

Strange had gained a hundred yards in the German's brief maneuver. The Albatross was almost in his range. He tightened his hold on the trips, then stopped. If the Boche crashed there in the street, he would plunge into the crowd.

Grimly, Strange waited. The two-seater suddenly zoomed. Strange backsticked and shot after the Boche. For a lightning instant, he saw the pilot's face as the man stared back at him.

He started. It was not a face—only a shapeless white mass, with tiny holes for eyes. Only one glimpse he had, then the Albatross swiftly rolled onto its back. An arm whisked back from the pilot's pit.

Then the man in the gunner's pit tumbled into space. Strange banked frantically as the plummeting form came down toward the Spad. Then his lips parted in amazement.



FROM head to foot, the body was covered with tightly wound bandage strips. Like some weird white mummy, the figure fell toward the street. Fifty feet above it, a small black parachute opened with a jerk. The bound form swayed past Strange, swinging under the black canopy.

As it spun at the end of the shrouds, he saw two holes resembling eyes. A shiver went over him. There was something unutterably horrible, gruesome, about that dangling thing.

T-t-t-t-t-t! Thudding lead tore into the cowl before him. The Hispano skipped, then roared on with a ragged beat. Strange snatched at his trips—but the hail of slugs had come from below.

French machine-gunners were firing from the roof of the Crillon. Across the street, on the Ministry, more guns were shredding the air around the Albatross. The Boche had rolled right-side up, and was now desperately fleeing. Strange evaded the hissing fire of the French gunners, and charged after the Albatross. The Boche had spun around, darting between two waving searchlight beams. For a moment, he was less than three hundred feet from the Spad.

Strange tripped the Vickers with a venomous clutch. They were over one of the parks. If the Boche dropped now, the crowd would be safe.

A murderous stream poured from the leaping Vickers. The Albatross bucked, fell off on one wing. Before Strange could crash out another burst, the French gunners drove in a fierce crossfire to catch the Boche two-seater. Tracers sprang out toward the twisting Spad. There was a loud report from the nose of the ship. The Hispano belched black smoke, broke its ragged pound.

Strange cursed the Frenchmen bitterly, as he nosed the crippled ship down. An oily black cloud swept into his face. He wiped his goggles hurriedly, and sideslipped toward the boulevard. As the smoke blew away from his pit, he saw the mummylike figure. It had almost reached the ground. He saw it hit. The parachute dragged its burden against the left-hand curb, then collapsed.

A group of pedestrians surged toward the spot. Strange cut his switch, and skidded away from the running figures. The Spad fishtailed, smashing off its landing gear. The plane slid along, and crashed its nose into the curb. A broken strut jabbed back at Strange. He ducked, and unfastened his belt as the Spad turned over.

He struck rolling. Fire leaped up behind him. He jumped to his feet, ran upwind from the flames. Above, the Albatross was racing into the night, zigzagging away from the lights. Across the boulevard, *gendarmes* were struggling to herd back the crowd. The group which had eluded the police was now split up. A few had stopped to gaze at the burning ship. The others ran toward the place where the weirdly bound figure had fallen.

Strange hastily circled the Spad. As

he neared the bandaged form, the Spad's fuel tank blew up with a roar. Metal and flaming fragments flew in all directions. One piece of burning fabric fell on the weird white figure, and set fire to a loose strip of cloth. Strange leaped forward to put out the blaze. Then he froze.

A horrible, red-blotched face showed through the torn bindings. Swollen flesh had tightly closed the corpse's eyes. On one bare shoulder, where the windings had been shot away, were more of the hideous blotches.

"Good God!" Strange whispered. "The Red Plague!"

His blood was like ice in his veins. The Red Death, here in Paris—the dreadful scarlet plague of the Middle Ages. Centuries past, it had raced through Europe like a vast forest fire. And now, in this great metropolis—Strange spun frantically toward the first of the morbid throng.

"Keep back!" he shouted in French.

Three of the group halted, but a huge British Tommy dashed on, with two more at his heels. Strange threw open his coat, snatched out his .45.

"Get back, you fools! You'll die if you touch him!"

The big Tommy gave a roar. "Grab him, mates! He's likely a blooming spy!"

One of the Tommies lunged. Strange whirled, and the man ran into a smashing left. The second man jumped back.

Strange jerked toward the leader—but the big Englishman had seen the dead man's face. He gave a hoarse cry, and came to a rigid standstill. A Frenchman with a girl at his elbow had pushed past the second Tommy. He gave the mottled corpse one horrified look.

"*Sacré nom!*" he shrieked. "It is the plague!"

He and the girl fled madly. The three Tommies tore after them, forgetting Strange completely. Strange moved back from the eddying smoke. By the glare of the burning plane, he saw something marked on the dead man's breast. As the blaze rose higher he saw a curious symbol, and under it five letters traced in blood.

"*Rache,*" the letters spelled. Strange started. That was German for "revenge." Then this unfortunate man had been deliberately infected with the Red Terror.

He turned as he heard the pound of horses' hoofs. Spahi guards were galloping toward the spot, heading off the crowd. Suddenly one of the Spahis saw the pistol in Strange's hand. He seized his carbine, and the weapon spurted orange.

The bullet plunked into the asphalt, close to Strange's feet. He jumped back, raising his hands, the pistol pointing skyward. Some one in the milling crowd gave a wild shout.

"*Espion! Kill the spy!*"

## In the Next Issue of FLYING ACES

*The Magazine That is Three Magazines in One!*

### Fiction~

Philip Strange in a Gripping Mystery Novel  
by DONALD E. KEYHOE

Phineas Pinkham in "Geese Monkeys"  
by JOE ARCHIBALD

James Perley Hughes, Edwards A. Dorcet and Others

### Fact~

Chuting the Chutes, by H. Latane Lewis II  
Thrilling True Story of the Caterpillar Club

What Army and Navy Airplane Markings Mean

### Model Building~

Complete Plans for the Great Lakes Trainer  
with movable controls and structure work of the real ship  
Bellanca Seaplane Bomber — a three-view layout  
Flying Aces Hedgehopper and Model Hints

### Also~

Pilotopics, Snapshots of the War and of Modern  
Fighters, Wisecrack-Ups, F. A. C. News and  
Many Other Interesting Features

April FLYING ACES

On Sale February 25th



## CHAPTER II

## THE SPY WEB

LIKE a flood, the mob poured through the *gendarme's* ranks, charging past the mounted guards. Strange whirled toward the park at his left. Guns barked behind him. A handful of pedestrians on the sidewalk scattered hurriedly before him. He darted along the first path he saw. At a fork in the lane, he turned, dashed to the darker side. Holstering the .45, he tore off his helmet and goggles. His flying-coat followed. Still running, he unbuckled the pistol belt. He threw it aside, and was shoving the gun under his breeches belt when a light flashed up ahead.

He wheeled to the right, and ran at top speed under the trees.

"Halte!" rasped a menacing voice. A dozen *gendarmes* swarmed to the spot. Strange was seized, his gun snatched from his hand. A blue-clad *capitaine* glared into Strange's face.

"So we have finally caught you, pig of a Boche!"

A hubbub from the direction of the boulevard interrupted Strange's answer. Another *gendarme* dashed up, wild-eyed.

"The mob is out of hand, *capitaine!*" he gasped.

A mad scream rose above the yells of the crowd. "*La rouge fièvre!*"

"The red plague!" cried one of the *gendarmes*. "*Mon Dieu*, then that body we saw dropped—"

"We must get out of here," rasped the captain. "Secure this man—get him to my car."

Strange was hastily manacled, and rushed to a closed Renault back in the park. The *capitaine* jumped into the rear with Strange, gripping the .45.

"Abandon the search for that other," he flung at the *gendarmes*. Then, as the car raced forward, he glared over the pistol at Strange. "Now, who are you?"

Strange made no answer. In the last few seconds an odd premonition had come over him. The officer frowned as he remained glumly silent.

"It might help if you told me the truth at once."

Strange's pulses leaped. He was right. It was the first code phrase. "What can you offer me?" he asked curtly.

"Perhaps escape from the three blue peas."

"If you mean the firing squad, I do not fear it," Strange said carefully.

The officer's face was in shadow. "A disagreeable end. A crash of rifles at dawn—and eternity. Sometimes the morning hour—"

"Brings golden dower." Strange finished the quotation.

The sharp-eyed captain leaned toward him, gun poised. "*Wie gewonnen*," he snapped.

"So *zernonnen*," Strange said instantly.

"Your group and number?" demanded the other.

"Kronprinz—Z-9."

He felt the spy stiffen at this unexpected completion of the recognition formula.

"If you are of the *Kronprinz* group," the man said doubtfully, "what marks the black door at Wilhelmstrasse?"

"First," Strange said coolly, "give me your own number and code, *mein Herr*."

The spy hesitated uneasily. "J-3," he muttered.

Strange's uncanny memory raced back to the secret spy register he had once risked his life to see at Berlin.

"*Sehr gut*, Count von Kroben," he said suavely. "I was only making sure. It has been some time since I saw you."

The spy started violently. "You know me! Then you must be of the K. N. A."

Strange smiled ironically. "Do you still wish me to describe the Emperor's coat-of-arms on the black door—or the little alcove where he receives his special agents?"

The spy hurriedly brought out the handcuff key. "I must apologize, *mein Herr Excellenz*."

"Not at all." Before the spy could use the key, Strange calmly dropped the manacles into his lap. "A little trick you should guard against," he told the staring German. "Always watch a captive's hands."

Von Kroben held out the .45 with a disgruntled expression. "I had better return this before you whisk it out of my fingers."

Strange accepted it, and held out his other hand. "The magazine, too, if you please."

"*Zum Teufel!* How did you know?"

"A slight difference in weight, plus your manner of making a final test."

The spy sourly handed him the clip. "I seem a babe in arms tonight. I had better go back to *Fraulein Doktor's* spy school."

STRANGE'S face was stony, but a knife seemed to twist in his heart at the mention of that woman's name. War had shattered their romance, had made Karol von Marlow into the famous *Fraulein Doktor* . . . They had not dreamed, that moonlit night back in old Mecklenberg, what lay in store for them. An ironic tragedy of war had made her a teacher of spies—a foe of the Yankee Brain-Devil. But she had wept over the lonely German grave where he was thought to lie.

Grimly, he put the thought of her away. He would need all his wits tonight. Von Kroben was staring at him through the gloom as the searchlights faded.

"You took a fearful risk, *mein Herr*. I should think Mortke would have sent an ordinary pilot to stage that mock fight."

Strange thought swiftly, risked a shot in the dark. "It was partly real. The pilot of that Nieuport was a French spy who had learned part of the truth."

"*Lieber Gott!* Then we are ruined."

"No, I shot the swine dead. And I staged that crash so I could reach you quickly."

"Why, what has happened?" exclaimed von Kroben.

"Mortke wants a report on the work. I am to return with it at once."

It was another blind shot. He waited anxiously.

"But Schlossen left Le Bourget this afternoon to report. There is nothing else Mortke needs—except the map I am to bring tomorrow."

Strange plunged again. "Schlossen is a traitor. We caught the *Schwein* red-handed."

"*Himmel*, then von Zastrov must know."

There was panic in the spy's voice. Strange concealed his amazement. What kind of affair was this that they wished hidden from the German Intelligence chief?

"The old fox is not sure," Strange said slowly. "He is sending another agent to check up before he acts. That is a second reason why I came this way. You are to accept no one without the new code-word, '*Freidrichshain*.'"

"I will be on guard. But I do not understand about this report. The results of dropping that body are certain. The city will be panic-stricken within the hour."

"I am to check over the map—everything." Strange raced on as he sensed the man's suspicion growing again. "Mortke is afraid Schlossen may have lied about the whole thing."

There was a pause. Von Kroben's voice was harsh when he spoke. "How do I know you are not the agent von Zastrov is sending?"

"I would hardly tell you about myself," snapped Strange. "But if you feel that way, get the information to Mortke yourself."

His words seemed to convince von Kroben. The spy nodded. "I'll show you all that has been done. There are a few minor details left for the last."

Strange was silent. The less he said, the less the chance he had of betraying himself. The car had reached Montmartre. As it crept along, he saw the Winking Owl cabaret, one of his key locations. There was a trapdoor in a rear room of that cabaret—one of the thousand ways used by Apaches escaping from police to the labyrinth of sewers under Paris. In the guise of an Apache, Strange had explored many of the gloomy tunnels, learning new ways of access to his hiding-place in a forgotten catacomb.

The car halted a few moments later. Strange gave no sign of recognition as he followed the spy into a decorated vestibule, but he knew they were entering a gambling house frequented by Allied officers. He had slipped his gun under his belt, with the butt concealed by the flare of his military blouse. As they entered the first salon, he brushed off his uniform, smoothed his rumpled hair.

A number of men in uniform were ranged along a small bar. Farther back, groups hung around the faro and baccarat games. Von Kroben led the way into the main salon. Paintings, soft rugs, and glittering chandeliers made an attempt at grandeur. The



click of roulette wheels and the monotonous voices of the croupiers rose above the occasional comments of the gamblers.

Around one large table was a group of officers and men and women in evening dress. Not far away stood a gray-haired man, immaculate in evening attire. Strange saw the quick interchange of glances between this man and von Kroben. The civilian strolled toward a door on the right and disappeared.

Von Kroben drew out a cigarette case, carelessly glancing over the tables. Suddenly his fingers tightened on his cigarette. Strange followed the gaze of his slate-colored eyes. The croupier at the large table was raking in the house winnings on the last play. As Strange saw the man's ferretlike countenance, he understood the spy's start.

The croupier was Jacques Rosseau, of the war-time Deuxième Bureau. He was one of André's best agents.

Von Kroben moved back from the light of the chandeliers. Strange was turning, also, when his glance fell on a woman midway down the table. She wore an ivory satin gown, above which her shoulders made a lovely curve. Her dark head was bent, her eyes on the chips before her. As she leaned forward to place a bet, a profile clear as a cameo was turned toward Strange.

An electric shock went through him. Karol—here in this spy-web!

FOR a moment his eyes devoured her hungrily. She was more beautiful than ever, but there was a shadow, a strained look in her face. A cold shiver went through him as he realized the chance she was taking. French agents had hunted her for months. If Rosseau was on her trail. . . .

"Come," von Kroben muttered, at his back. With an effort, Strange tore his eyes from Karol. He watched the spy keenly, but the sight of Rosseau had evidently distracted the man's attention from Karol.

As he neared the side door, Strange gazed into a mirror above a fireplace. Karol was watching them guardedly. Von Kroben entered the adjoining room, motioning for Strange to close the door quickly. Then he wheeled toward a bald old man who sat at a carved desk.

"Have you lost your mind?" he rasped. "That new man is a French agent!"

The old man cringed under the German's glare. "I know it, but they do not suspect us. The Surété is on the trail of some woman. I was officially ordered to place the agent."

Von Kroben scowled. "It might be a trick, but it is hardly likely that they would take a chance on our escaping, by telling you."

Strange listened, cold at heart. Von Kroben's sharp voice cracked into his seething thoughts. "Open up, then. And if anyone inquires, we left by this other door." He nodded toward an exit back of some portières.

The bald-headed man locked both doors, went to a bookcase back of the carved desk. He took out a thick vol-

ume and reached into the space. The entire case swung away from the wall. Strange felt for the butt of his gun as he followed von Kroben down the steps which were revealed. The bookcase clicked shut behind them. The spy pointed a tiny flashlight into the darkness below, spotted an old, blackened door.

At his rap, thrice repeated, the door was narrowly opened. The gray-haired civilian in the evening dress peered out over an automatic.

"It is all right, Franz," said von Kroben. "This man comes from Germany with a message."

Franz let the door swing a little wider, stepped back to a table and laid down his pistol. Von Kroben motioned Strange ahead.

"After you," Strange said coolly. "And tell the man hiding back of the door to move—unless he wants his head bumped."

Von Kroben gulped. There was a stifled curse from behind the door, and a scowling, unkempt figure appeared. Strange looked at the gun dangling in the man's fingers, and turned icily to von Kroben.

"When will you get it through your thick skull that I am to be trusted?"

"It was only the usual formality," the spy said sullenly. "We have to be careful."

Strange stalked into the room. He seemed to be making an indifferent survey, but in reality he was listening with straining ears to the thud of his heavy boots on the stone floor. The odds were that he was right. . . .

The door closed abruptly. He stopped near a packing-box which lay flat on the floor. From this corner, he could watch all three men. Von Kroben nervously unfolded a map which lay on the table. Moving the thick candle which lit the room, he beckoned with his other hand to Strange.

"Here, you can see the main points." He held the candle over the map. "The key to the whole thing is the color scheme."

"If you lit the candle on that side cabinet," Strange said drily, "I might be able to see better."

He had not moved from his position. There was cold murder in the air. Somehow he had failed to convince that pale-eyed Prussian. Even now, von Kroben was maneuvering to get him blinded by the light so that one of the others could drop him.

There was a hush as von Kroben looked around from the table. Little drops of perspiration glistened on his forehead.

"Light the other candle, Ernst," he told the roughly clad agent. "Hurry, his *Excellenz*'s time is precious."

Ernst started across the room. He was picking up the other candle when there was a sound from outside the door. There came a hurried rap.

"Albert?" grated von Kroben.

"Oui, I have a message for you," came the ready voice of the old proprietor. It had an anxious note.

Von Kroben jerked his head, and Franz slid the bar after a sidelong glance at Strange. Strange let his

curled fingers steal toward the gun under his blouse. This might be his only chance.

"Ach, du Lieber!" Franz suddenly snarled. He leaped back from the open door. Albert's hands were in the air, and his flabby face was yellow with fear. Behind him was *Fraulein Doktor*, a pistol in her hand.

AS Franz jumped back, she swung the gun swiftly.

"Raise your hands—all of you!"

Franz rasped an oath, but obeyed. Von Kroben was almost in line beside him. He, too, put up his hands, but Ernst snatched furiously at his automatic. Strange sprang as the weapon came up, but he was too late to knock the muzzle aside.

Flame spurted. There was an agonized cry, then a second shot roared. Ernst staggered back, clutching at his shoulder. His gun clattered to the floor.

With a moan, old Albert sagged to the floor. Ernst's shot had struck him above the heart. *Fraulein Doktor's* pale, set face showed over the smoking pistol which had crippled Ernst.

"Perhaps that will convince you that I am not playing," she said in a low voice. Without moving her eyes from von Kroben, she spoke to Strange. "And you, in the American uniform, get back with the others."

Hands lifted, Strange did as she ordered, but his every nerve was taut for a sudden move by the three spies. Ernst edged back under the look of cold determination in *Fraulein Doktor's* eyes. Von Kroben took a step sideways, but halted as the gun flicked to cover him.

"Keep away from the candle," the girl said in that same low voice.

Von Kroben's teeth bared in a snarl. "So the great *Fraulein Doktor* has turned traitor!"

Her dark eyes burned into him. "Where is the map?"

"You will never get out of here alive with it," he rasped.

"Nor will you," she said grimly. Her eyes swiftly passed over him to Franz, then to Strange. Strange let his eyelids droop in a sullen stare. It was not likely that Karol would see through his make-up, but if she did, it would startle her and give those devils a chance to charge.

"Move back," Karol ordered them. "Face the wall!"

Franz turned, but von Kroben burst into desperate speech. "Wait, *Fraulein*! We will pay you more than the French."

"It goes to von Hindenburg," she said coldly.

Von Kroben turned chalky white. "*Mein Gott*, he will not understand. The stupid fool is content to fight a hopeless war—"

"Instead of committing a horror the world will never forget!" Her words came like flicks of a lash.

"But the Fatherland will not be blamed. We have planned it so—"

"You jackal!" A look of loathing crossed *Fraulein Doktor's* face. "To



share the secret reward, you would let your own mother die that horrible death."

Von Kroben opened his mouth, but suddenly went rigid. A crashing sound came from the top of the steps that led to the hidden room. A muffled voice was audible from above.

"Rip out the back—*vite!*"

"The French!" cried von Kroben. "You she-devil, you've betrayed us!"

For a second, the girl's eyes had swept toward the door. Von Kroben lunged, but Ernst was faster. Leaping from a crouch, he struck at the white hand holding the gun.

The weapon fell to the floor. Ernst drew back his fist. The crack of Strange's .45 came like the roar of a cannon. Ernst spun around, driven back by the heavy slug's impact. He fell, groaned and was still. Von Kroben dived madly for the gun on the floor. Strange kicked it out of his reach, and whirled to meet Franz.

The gray-haired spy had leaped for the gun on the table. He threw his hands into the air as he saw Strange's savage face.

"Bar the door!" Strange snarled.

Franz obeyed, his cheeks a pasty color. Strange jerked his gun toward von Kroben.

"Get up! Move that box from the trap!"

As the spy jumped to his feet, Strange heard a second muffled crash. The raiding agents had broken through the bookcase in the room above. He gave Franz a shove that sent him headlong, then wheeled toward *Fraulein Doktor*.

She was staring at him in amazement. He grasped her arm tensely. "Take that gun on the table!" he said sharply. "Cover von Kroben."

A dazed look came into her eyes. He gave her no time to think. Seizing the other pistol, he thrust it into her hands. Men were already dashing down the steps toward the secret room. He heard Rosseau's excited voice.

Von Kroben had pulled the flat packing-box away from where it had lain. As Strange had suspected on hearing the hollow echo of his boots on the floor, there was a trapdoor and space beneath which he knew must lead to the sewers. He seized the map, crumpled it hastily and put it under his blouse.

An axe crashed against the heavy door to the room. Rosseau's voice rose in a bellow for surrender. Strange leaped across the room. Von Kroben had flung open the trap, and was trying to escape. The girl drove him back into one corner. Strange jammed his gun into the spy's ribs, hurriedly searched until he found the man's flashlight.

"Take this—go down the ladder," he told Karol swiftly. "I'll follow in a second!"

An axe gashed its way through the door. Splintering wood flew into the room, and the snout of a gun poked through.

"Unlock the door!" roared Rosseau.

Franz suddenly hurled himself at the trap just as Karol was starting to

descend. Strange fired. Blood spurted from the spy's lips as the bullet tore through his throat. Von Kroben was on the floor, almost back of the trap. As Strange wheeled for the shot at Franz, the Prussian launched himself at the table. It went over with a crash, and the candle went out instantly.

Rousseau's pistol flared from the hole in the door. The axe was crashing again. Strange jumped for the trap, watching the glow of Karol's flashlight beneath. As he went down the ladder, he heard von Kroben fall over the packing-box. He looked down, then let himself drop the last few feet.

KAROL whirled, her light stabbing at his face. He ducked out of the beam, dragged her aside as von Kroben fired from the top of the ladder. Strange gave a yell as though he had been hit, and snatched the light from Karol's hand. He whipped it through an arc, saw a passage on the right. They ran for a few yards, turned sharply, and emerged on a narrow ledge beside a branch sewer. Strange looked hurriedly about him, estimating the angle of the street above.

"This way," he whispered. He took Karol's arm, helped her along the ledge to the left. "Be careful—it's slippery."

The flashlight played along the arched sides of the sewer, showed another branch. They were within forty feet of the junction when a shot rang out behind them. Brick and mortar chipped from a spot near Strange's head. He switched out the light.

"Keep moving," he whispered to Karol. "Hold close to the wall."

They slid along as quickly as possible. In a moment the ledge widened, and Strange knew they had reached the larger sewer. Angry voices suddenly echoed through the tunnel. Rosseau and his men had reached the first ledge, were arguing about which way to go.

"I tell you he went to the right," Rosseau insisted. "Here, you can see his footprints in the mud."

Strange bent hastily over Karol. "They'll see our tracks in a minute. We'll have to run."

She had not spoken since he joined her, but now she gave a startled gasp. "Who are you?" she asked tensely.

Strange masked his voice. "A friend, *Fraulein*. There's no time for more, now."

The sewer curved gradually. They had gone about three hundred feet when the ledge took an upward slant. Strange halted, switched on the light. An abandoned inspection shaft led away into darkness, just back of them. He was drawing Karol into it when she abruptly halted. Before he could guess her intent, she turned his hand so that the light fell on his face. He braced himself. She thought him dead. He was afraid that the truth might be too much of a shock just now.

"Who are you?" she whispered again.

"I—there is danger in stopping here, *Fraulein!*"

He flung out his hand for she had turned deathly white. She raised

stunned eyes to his, then gave a broken cry.

"Philip!"

He caught her as she fell. "Karol!" he groaned. He lifted her in his arms, knelt so that he could see her face by the torch he had dropped. In a moment her eyes opened.

"Philip—is it really you?"

His arms tightened about her. "I wanted to tell you before," he said huskily, "but there was no way."

"I thought you were dead," she whispered. "There is a grave—a terrible place—where they think you are buried."

"To Germany, I must always be dead," he said softly.

"They will never know through me, Philip." She looked up at his face. "I would not have dreamed it was you—but for your voice. Put me down, so I can see you and know you are really alive."

He released her gently. "You are still in danger. I must get you out of here." He picked up the flashlight. "There is an exit from this old shaft to a basement room in a small cabaret. Once we are there—" He stopped, as he saw the stricken light in her eyes.

"I had forgotten!" she exclaimed. "I must get away before it is too late." Then, at his expression, she said hurriedly, "It is nothing against the Allies, Philip. I swear it!"

Strange wheeled as a shout echoed through the tunnel. "Rosseau's men," he groaned. He pressed the flashlight into Karol's fingers. "Hurry! The steps are around the first turn, on the right. A trapdoor in a closet—it is usually an empty room but you can bribe anyone that might be there." He pulled out his wallet as he spoke.

"No, I have money," Karol whispered. "But you—what are you going to do?"

"Lead them the other way."

"You'll be killed! I can't let you—" "I'll be all right." He pressed her cold fingers for a fleeting second, then hurried her toward the shaft. He waited until he saw the gleam of her flashlight disappear, and doubled back toward the main tunnel. As the first agent's light winked around the curving archway, Strange fired a shot into the roof of the sewer. The agent crashed out a hasty reply.

Strange flattened himself against the wall. The .45 blasted again, and the agent yelled as chips of brick rained down on him from the roof. Strange turned and ran up the slanting ledge.

"Run, *Fraulein!*" he shouted.

Pistols cracked wildly behind him. He flung himself around the turn, dashed ahead. The agents came after him, shouting. He emptied his last shot into the sewer and threw away the gun. He ran as fast as he dared, till he came to an iron ladder leading up to a manhole. He sped up it, shoved open the lid.

Astonished pedestrians gaped at sight of an American officer emerging in the middle of a Montmartre street. Strange slammed back the iron cover, and dashed for an alley before anyone



had time to stop him. He hastily made his way to the Winking Owl, and slipped through the smoky front rooms to the rear of the establishment. A suspicious waiter followed him.

Strange took out his wallet. In thirty seconds he had the information he desired. Yes, a lady had gone back through the kitchen to the alley-door. She was very beautiful, but her gown was soiled—like *monsieur's* uniform . . . .

Strange gave him another ten francs, and hurried to the alley. As he had expected, there was no sign of Karol. Relief battled fear within his breast.

He found a taxi, and paid the driver double fare for a quick journey to the Deuxième Bureau. As the cab rumbled along, he took out the map he had stolen, inspected it by the flare of a match. Slowly, a puzzled look came into his green eyes . . . .

### CHAPTER III

#### DEVIL'S DISGUISE

MOTOR roaring, the Surété limousine sped out of Paris toward Le Bourget Field. In the rear seat, *Commandant* André held onto a strap and gazed, wide-eyed, at Strange.

"*Pardieu*, even now I think I may be dreaming!" he exclaimed. "Pinch me, *mon ami*, so I will be sure you are not a ghost."

"I came nearer being a ghost than you think, André. But it was so good to see you again—I almost gave myself away tonight at Fièmes."

"If I had known then—but I still do not understand."

Strange looked quickly toward the driver, but André shook his head. "The glass panel is soundproof," he assured the American. "So now, tell me what is all this about. For no other man would I scamper off at such a grave moment."

"You mean the red plague?" Strange said grimly.

"*Sacré bleu!* How did you know, if you have just arrived?"

"I was in that Spad. I cracked up near the body that devil dropped." Seeing André's start, he added, "Don't fear, I kept upwind."

"I was not thinking of that," the little Frenchman answered. "I was thanking my poor aim with the guns. At first I thought you were another Boche. Then when you dived in and saved me—"

"Too bad I didn't move fast enough to get that fiend in the Albatross," muttered Strange.

"We will get him next time," André said in a hard voice.

"Whom do you mean?"

"Who but this butcher Garst?" snapped André. "But then I forget—you do not know the whole story. Garst was shot down by one of the 63rd *Escadrille*, months ago. His face, I hear, was badly mutilated, and he lives for nothing but revenge. He dropped a message at the 9th, a few days ago, saying he would kill every man in the squadron. There were three in it who had been in the 63rd."

"And the First Defense—there were

some of the old 63rd in that, too?"

André started. "*Oui*, but we have kept that secret."

"I was signaled not to land there," explained Strange, "and I had heard the message telling you 'it' had struck again."

"It is a horrible thing, Strange. At both fields, the disease spread like lightning after those bodies were unwrapped. The 9th was almost destroyed. We didn't dare let the story get out. Whole squadrons would have deserted their fields. Surgeons and men with masks and gloves evacuated what was left of the 9th, and I staged that scene you saw."

"So you think this is one man's revenge," said Strange. "I suppose, then, that those were bodies of captured pilots?"

"But of course. Garst even puts his crest—or a crude likeness of it—in blood on his victim's breast. And underneath—"

"The word '*Rache*.' " Strange finished quickly. "Yes, I know. But it is a trick."

"But we have other proof," protested André. "One of my men has already found the car from which powder was dribbled onto the Champs Elysees for that signal. There was part of a torn letter in code, which—"

"Was so simple that you easily deciphered it and found it was from the *Rittmeister*," Strange smiled.

"*Nom d'un nom!* You mean it was—"

"Planted," Strange drew down the car curtains and turned on the dome-light. "Here, look at this map while I tell you why I know."

He described his encounter with von Kroben, carefully omitting all reference to Karol. "But for a raid—evidently by some of your agents," he concluded, "I would probably have been killed. I turned the tables as they made a dash for the sewers."

André's jaw dropped. "*Parbleu!* Then that explains those dead men at—" A blank look came into his face. "But Rosseau was after *Mademoiselle la Docteur*. He phoned that she escaped through the sewers, too." He looked hard at Strange.

STRANGE coolly lit a cigarette. "With all due respect for your colleague, I hardly think he is a match for *Fraulein Doktor*. She probably tricked him—if she was there at all."

André did not answer. Strange looked up to find the little major eying him shrewdly.

"Admiration for an enemy, *mon ami?*"

"I always admire a clever mind," Strange studied his cigarette.

"They say she is very lovely," André commented, looking toward the roof.

Strange shrugged. "Probably exaggerated." He picked up the map, pointed to dabs of crayon at various points. "What do you make of this?"

André sobered. "I would say more bodies were to be dropped in Paris, one at each of those points."

Strange shook his head. "Now that you are on guard for the engine trick, it would take a miracle for a pilot to get down at those places."

"You have some inkling?" André asked anxiously.

"No, those marks puzzle me. But there is a good chance of getting the truth of this terrible affair—from von Kroben."

"But you say he escaped."

"Yes, and he will try to reach Germany quickly. He admitted a connection at Le Bourget."

"*Mon Dieu*, then we should have warned them!"

"I took the liberty of impersonating you on the phone, while you were getting me this French uniform. Not even Fonck could take off from there till you arrive."

André threw up his hands in mock despair. "Such a man!"

Strange picked up the flat make-up kit which had been strapped around his waist, under the American uniform. He inspected its contents while André stared at the map. The car was now on the highway to the field. As it settled into the smoother going, Strange moistened a sponge with alcohol and began to remove the enamel-like make-up which hid his true features.

André sat up stiffly. "But you just told me no one was to know about you," he said. "There will be five or six who know you at Le Bourget."

"Not when I've finished," said Strange. He removed the stain from his brows, rubbed out all traces of the hollows and lines in his cheeks. "If you will tell your driver to pull off the road for a few minutes, I'll try to become *Herr Graf* von Kroben, J-3 in his Majesty's *Nachrichtenamt*."

André gave the order, and the car rolled to a stop. With the curtains still down, Strange set to work. André watched, fascinated, as Strange swiftly brought the features of the Prussian spy to life upon his own face.

"An amazing change, *mon ami*," he said when Strange had finished.

Strange eyed himself in his small, sectional mirror. "Not a finished job, but with the uniform it may do."

"Would you mind—" André said acidly as the car started on—"telling me the why of this vast desire to be an ugly Hun?"

"So that we can trap von Kroben's accomplice at the field. With him out of the way, I have a scheme to fool our Prussian friend."

The unmistakable roar of an airplane engine sounded ahead. Strange snapped up a curtain. Lights were bobbing like fireflies along the line near the hangars. Another engine thundered. Flares spotted the gloom.

André hurled a torrent of French at the driver, and their machine hurtled toward the field entrance. A sentry jumped out from his post. The driver bawled something at him and raced on. André leaped out as they came to a squealing halt in front of the administration building. Strange followed in a run toward a little knot of officers near the line. One of the men turned, and Strange recognized Ribault, the C. O.

"*Caboche!*" André exploded. "Did you not get word that no one should take off until I came?" Ribault's eyes bulged.

"But the order—the one you just sent



by the Surété lieutenant—"

"*Le diable!*" howled André. "Are you mad? I sent no order!"

Ribault paled. "But, *Commandant*, it had your signature."

Strange cut in swiftly. "This lieutenant—where did he go?"

Ribault looked around frantically. "He was here a moment ago—he and the driver of his motorcycle."

"There they are now!" cried an excited pilot.

Strange whirled. Two figures were running toward a Breguet which stood with idling engine. The first figure, the larger, wore the leather jacket and goggles of a dispatch cycle rider. The second was in French officer's uniform.

"After them!" shouted André.

The prop blast suddenly tore at the cap of the blue-clad figure. It hurtled back toward the line. For a second, close-cropped blond hair gleamed in the light of the flares. Then, to Strange's amazement it, too, whipped away. A woman's dark hair streamed out in the wind.

It was Karol!

THE man in the jacket caught her arm, and swung her in to the rear pit. As Strange's dazed mind jerked his feet toward a halt, the man sprang up on the wing. The engine roared as he reached in for the throttle. A cloud of dust billowed back.

Somewhere, a shot cracked feebly through the thunder. The Breguet whirled out past the line of ships. As the dust settled, Strange saw André racing toward another Breguet. A pilot was almost into the front pit, but the major hauled him back. Strange arrived just as the angry little Frenchman seized the pilot's goggles.

André howled something which was lost in the boom of the Renault. He jumped for the front seat. Strange tumbled into the other pit.

Men were running around frantically. A Nieuport shot out from the line, took off in a crazy zoom. Suddenly a Chau-chat rattled from a gun-pit. A searchlight blazed out. Strange scanned the sky feverishly for the other two-seater, as André pulled the Breguet up in a stiff climb and banked recklessly. Then Strange saw the other plane. It was lining into the northeast at terrific speed. André followed grimly, the Renault wide open.

Strange shuddered as he thought of André's hand hovering over the trips. The gap was still wide, but a long-range burst might by some ill fate find its mark. The fiery little major was hunched forward, matching the other ship's course. Strange hauled himself over the hog-back.

"We'll never catch them!" he shouted. "He's running that engine wide open."

"Then we, too, run wide open!" André yelled fiercely. "We'll find the nest of these Red Plague devils!"

Strange groaned. When the little Frenchman got into a rage like this, nothing short of physical force could stop him. And there was no stick in the rear pit. Strange sat back helplessly. Searchlights were springing up

ahead, marking the path the other ship was taking. Archie shells began to burst on all sides. The alarm had gone out from Le Bourget.

Strange watched, hoping André would turn back as they ran into that sea of exploding shrapnel. But the Breguet thundered on. Paris was swiftly left behind. Soon the glare of the Front beyond Château-Thierry became visible.

The smell of hot metal came to Strange's nostrils. The Renault was beginning to pound heavily. He crawled forward again to shout a warning. Suddenly guns chattered from somewhere high up in the night. He jumped back, hastily fastened his belt. Tracers were streaking almost vertically out of the blackness above. He whirled the rear gun-mount. The gunning plane was almost certainly a German ship, for the other Breguet had been racing straight ahead.

André chandelled violently. The sparkling tracers whipped off to the left. The cowl guns snarled as the diving ship flashed by. Strange had a brief glimpse of the plane against the glare of the Front. His finger slacked on the trigger of his guns. It was the Nieuport which had taken off with them from Le Bourget.

Evidently the pilot had mistaken their ship for the other. The Nieuport zoomed to re-attack, but there came a sudden interruption. From the rear of the other Breguet, twin red eyes flickered evilly. The Nieuport sheered out, was lost quickly in the dark.

A star-shell exploded into a blue-white brilliance, ahead and to the right. André kicked around fiercely as the fleeing two-seater was clearly outlined. The other ship was slanting off to the west in a long, full-power glide. As the star-shell faded, Strange saw the Nieuport plunge toward the other Breguet. Red lines probed down into the gloom. Sick with dread, he stared into the night, expecting at any moment to see a gush of flame from the ship in which Karol flew.

A shout burst from his lips as he saw the rear-pit guns flame again. Then the word choked off. She was firing on an Allied pilot. It was self-defense—but something turned cold within him.

More star-shells burst and lit up the sky. The stolen Breguet was now plunging for the ground, with the Nieuport on its tail. With a jerk, André pitched down to join the attack.

The first Breguet pulled up and circled sharply away from the field. The Nieuport pounced furiously. With a swift reversal, the two-seater spun about. Red lightning flashed from the spy-pilot's guns. The Nieuport faltered, flipped over and spun.

A mad yell ripped from André's lips. Guns blasting, he hurdled the gap between the two Breguets. For an instant, the tracer lines of the two ships crossed like flashing swords. Fabric ripped from the wings of the stolen plane.

Something snapped in Strange's mind as he saw André's bullets twist toward the other ship's side. He leaped

forward, reached toward the crouching Frenchman.

Abruptly, there was a crash of splintering wood. His hand was almost on the stick when something whizzed in from the wings. Lights danced before his eyes as a broken strut hit the side of his head. As from afar, he heard André give a cry. He slumped back. The ship was skidding into a stall.

With an effort, he shook the cobwebs from his brain. The ship was skimming down over a wooded slope. The lighted drome lay a thousand feet to the right. Near the farther end, something huge and dark loomed up. He stared groggily. It was a black Zep-pelin; but what was a Zeppelin doing this close to the Front?

A Fokker was zooming toward them. The Breguet tilted, slipped and leveled off drunkenly. They were almost on the ground when Strange saw André's head slump to one side. He sprang and caught the stick just in time. The ship bounced, came back and stopped in a slow groundloop.

## CHAPTER IV

### THE BLACK ZEPPELIN

HE leaned over André and saw that there was blood on the Frenchman's temple, but he was stirring. Strange bent lower as he saw men running toward the ship.

"Pretend you are dead," he said tensely. "When I get you the chance, try to escape in one of their planes. Warn Paris—"

He had time for no more. Four or five Germans had dashed up. He spun around as a panting *Unteroffizier* leveled a Luger at him.

"*Dumkopf!*" he rasped. "Put down that gun. Tell Mortke that J-3 is here!"

His imperious Prussian manner had the desired effect. The menace faded from the non-com's pudgy face. But before he could speak, a huge, curious figure burst on the scene like a whirlwind.

"Von Kroben!" came a thunderous voice, half-muffled by a heavy gauze mask over the man's mouth. Blazing eyes shone through goggles set in an enormous frame of rubber. "*Donner und Blitzen!* I was afraid the ship was about to be bombed."

Strange switched off the laboring Renault, and jumped down. The big German waved the others back with an imperative sweep of a rubber-gloved hand. Strange had time for a swift glance about the field. There was no sign of the second Breguet.

"What happened to the other two-seater?" he asked.

"It went down back of the ridge," boomed the huge Boche.

Strange's heart stood still. "Crashed—you mean?"

"Forced down, I think. Don't worry about them, or that *verdammte* Nieuport, either. The infantry will get them. We have no time to waste."

He gripped Strange's arm and started to hurry him toward an elephant-iron shack not far away. The



*Unteroffizier* ran after them.

"What of the other man, *mein Herr*?" he asked Strange with a hurried salute.

"The stupid pig is dead," snapped Strange. "Leave him where he is. I'll give orders about burying him later."

"Who was he?" demanded the big German.

"Only a traitor Frenchman I bribed to help me escape. That *Teufel* in the Nieuport shot him through the head."

"Ha, that is a good joke—his own countryman kills him." The goggle-covered eyes flashed toward the non-com. "Roll the plane to one side, then get your men ready to help with the Zeppelin."

"Ja, *Herr Mortke*." The *Unteroffizier's* face was suddenly pallid in the glow of the floodlights.

Mortke tugged impatiently at Strange. "Come, *mein Freund*, we shall have to work fast. I was about to go ahead without you, after I got that message."

Strange kept silent, and Mortke went on irritably. "You risked everything, sending that code, but I suppose it could not be helped. You're sure they don't suspect our plan?"

Strange's narrowed eyes were on the great black ship, which crouched like some dark monster.

"No, they do not suspect," he said grimly.

Mortke swung open the door of the metal hutment. "I should like to hear how they discovered you, but there's no time now."

"Then you strike tonight?" said the false von Kroben.

Mortke stopped, glared at him through the heavy goggles. "*We strike!* Don't think you will crawl out of your part now that the time has come."

"I was referring only to your leadership," Strange retorted coldly. "I am ready."

"*Gut!* You can put on your kit while I look at the map."

They had passed through a corridor into a fairly large room. On a platform in the center was a model of a city, carried out in considerable detail. Strange felt a chill go over him as he recognized a miniature Eiffel Tower, the winding Seine, and other important points of Paris.

Mortke pointed to a small porcelain surgical cabinet. Bandages, tape, and surgeon's masks lay on the extended shelf. On a near-by stand were rubber helmets similar to bathing caps, together with surgeon's gloves, goggles like the ones Mortke wore, and rolls of heavy gauze. From pegs on the wall hung rubberized coveralls ending in heavy-soled boots.

"Dress quickly," ordered the big German. "I shall finish as soon as I look at the map."

"I had to destroy it," Strange said glumly. "I was about to be searched."

"Imbecile!" roared Mortke. "How will I know—"

"I memorized it perfectly." Strange interrupted, as he hastily slipped into the coveralls. "I'll have to show you the main points."

"You can do it on board," growled the other. He tightened the gauze mask

over his mouth and seized a bandage roll. Strange watched covertly as he wound it around his throat and over the edges of his goggles. The American did the same, pulling one of the rubber helmets over his head. The suit had a wide inner flap. He smoothed it in place, zippered the suit tightly, and put on his rubber gloves.

Mortke had barked instructions to some one through a field extension-phone. As they came out of the building, the field was in darkness. Strange looked toward the Breguet. There were two Fokkers not far from it. André had an even chance . . .

MORTKE sighed gustily through his breathing mask as he strode toward the Zeppelin. "*Himmel*, but I shall be relieved when it is over. What with the Allies and our own Intelligence to guard against, it has been a strain."

Strange recalled Karol's words to von Kroben. "But the rewards will be worth it, *mein Herr*," he said.

"Ach, we will be rich men, von Kroben! And we will collect doubly, when our Junker friends begin to exploit captured France. They will not want the world to know they were connected with tonight's work."

Strange hid his revulsion under a gloating note. "It will be worth all the risk we have taken. But you're sure it will be blamed on Garst, and not the Fatherland?"

"Still worrying about that? I told you there will be positive proof that it was the act of a man who was mad for revenge. The Field Marshal ordered his arrest three days ago, when *Fraulein Doktor* brought word of Garst's threat. It cost me a pretty penny to effect his escape, but he is now a fugitive—and I have taken good care that Allied Intelligence knows it."

"And after it is over," Strange said through set teeth, "you will have him handed over to them as the guilty man, *hein*?"

Mortke started. "How did you know that? I had just thought of it, a short time ago."

Sounds of confusion from the direction of the big airship saved Strange from answer. A lantern threw its glow toward one of the engine nacelles. Mortke swore, strode toward the spot.

"What is the trouble?" he thundered.

A mechanic, with huge goggles and his face wrapped in gauze shrank away from the big German. "*Feldwebel* Loer has shot himself, *Herr Mortke*." The man's voice was husky with obvious fear.

"The coward swine!" snarled Mortke. "Well, drag him out of there. Some one will take his place."

Several of the gauze-masked mechanics started to slip back into the gloom, and Mortke whirled on them.

"Stand still, *Hunde!* Isn't there one man brave enough to volunteer?"

There was a strained hush; then one of the group stumbled forward, saluted shakily, and muttered, "I will go—for the Fatherland."

"*Gut*," rasped Mortke. "Take that dead *Schwein's* gloves and anything

else you need." He jerked his thumb toward the *Feldwebel*, whose sightless eyes stared up into the night.

The volunteer shivered, but Mortke deliberately turned his back, bawled orders to the handling crew. More lanterns flickered up. Strange looked swiftly for the deadly bombs he knew the ship must be carrying. Well aft, he saw something suspended from the lower frames and girders. It looked like a mass of metal weights, but he knew that it must be something more sinister.

An engine sputtered forward. He was startled to see a Halberstadt two-seater suspended near the rear of the cabin. A rope ladder dangled from a trap in the cabin floor, its end in the plane's rear pit. Ropes to port and starboard windows kept the wings from swaying. Another rope ladder hung from the main door of the cabin.

Strange scrutinized the two forward nacelles. The engines looked smaller than Maybachs, and there were no engine-men in the nests. Mortke gave him no time to wonder.

"Get aboard," he boomed. "I'll follow."

Two of the crew held the ladder for Strange. He saw the look in their eyes as he started up. It was as though they gazed on a dead man . . .

The man in the Halberstadt's front pit cut off the engine and climbed up into the cabin just as Strange arrived.

"Von Kroben?" he mumbled through the gauze which covered his face.

"Ja," grunted Strange. He made a quick inspection of the cabin. Six huge storage batteries crowded the rear. A switchboard was secured near the catwalk door, which had strips of paper over it, as though to keep out the cold. Power cables ran from the switchboard to the two forward nacelles. There was a black box, like a large wireless set, up in the bow. Rods connected with the elevator and rudder controls.

The lone Boche was putting a Maxim gun in a swivel by the starboard side when Mortke's huge frame loomed in the doorway.

"Schlossen?" he barked, looking from Strange to the Boche, unable to distinguish through the masses of gauze. The German stepped forward. "Stand by your water ballast. I want a quick rise."

Schlossen went to the ballast releases. Strange gazed down the main ladder, but no one else was coming aboard. Apparently there were to be only the four engine-men and these two Germans to handle the ship. It had an ominous look.

Mortke closed the trap to the plane and threw the engine telegraphs signals. A Maybach roared from one of the midship nacelles. Two more followed. After a brief delay, the fourth joined in a droning song. As the signals indicated that the engines were warm, Mortke went to the door with a megaphone in his big, heavy hands.

"All men on the bow line!" he belated.

The ship swung ponderously in the light breeze. Mortke knelt to cut loose the main ladder. Suddenly he sprang to his feet. The field floodlights had



flashed on. Strange moved hurriedly to see what had happened. Two cars were charging across the field, behind them a lorry filled with armed men. The leading car lurched to a stop beneath the Zeppelin, and a figure in blue jumped out, a pistol in his hand.

"*Gott im Himmel!*" roared Mortke. "It's a plot to stop us." He whipped the megaphone to his lips. "Stand by to let—"

A furious oath ripped from his throat. At the same moment Strange saw the upturned face of the man with the gun. It was von Kroben!

"HAUL down!" bawled Mortke. He leaped around toward Strange. Strange met him with a smashing hook to the jaw. Mortke went back a few inches and charged like an angry bull. Strange sprang aside, hurdled the black box in the bow. Before Mortke could reach him, he had seized the starboard Maxim and crashed its snout through the nearest window.

"Let's go!" he shouted at the crew. Then he clamped down on the trigger.

The burst was over the Germans' heads, but the gun's vicious snarl was enough. The men dropped the lines, fled in all directions. Strange ducked low and plunged under Mortke's thrashing arms. Schlossen sprang at him from across the cabin. Strange flicked his head to the right, missing the Boche's wild swing by an inch. As he dashed past the signal-board, he wiped his hand over the tiny toggles. Far aft, two of the Maybachs thundered.

Mortke had snatched up a pair of binoculars. They whizzed venomously past Strange's head. Schlossen made a wild dive for the port-side Maxim. Strange jumped after him, evading Mortke's clumsy rush. Suddenly a voice rasped from the direction of the door.

"Stand still, *Spion!*"

Glaring over a Luger, von Kroben clung to the top of the swaying ladder. Mortke flung out two huge arms and bore Strange to the floor. Von Kroben scrambled into the cabin, jerked the goggles and surgical mask from Strange's face. Schlossen's eyes popped as he saw Strange's made-up features.

"*Donnervetter!* Von Kroben, you never told us you had a twin!"

"*Dummer Esel!*" snarled the Prussian. "This *Schweinhund* is made up to impersonate me."

He was hastily fastening the gauze pack over his own mouth and nostrils. Mortke, after a blank stare from Strange to the spy, suddenly awoke to the fact that his ship was adrift.

"Ach, the elevator wheel!" he shouted at Schlossen. "Full climb!"

He rang for full speed on the four engines. The Zeppelin tilted up into the night. Von Kroben held the Luger tightly against Strange's chest while he pulled off the rubber helmet and gauze windings. Mortke turned savagely toward Strange as the spy stood up.

"Here, I will show you how to deal with the pig."

He seized Strange to drag him to the open door of the cabin. Von Kroben interposed as Strange began to struggle fiercely.

"Wait! I need that suit."

Mortke growled something and turned reluctantly to the rudder wheel. He set the ship on its course, released the rope ladder and closed the door as a high wind began to howl past the opening. Von Kroben handed the big German the gun, while he fastened Strange's goggles and surgical pack more securely on his own face. Mortke saw the spy's shaking fingers.

"There is no danger yet. Take your time."

"I notice you're fully covered," grated von Groben.

"To save time later. The ballonets are still tight, and that rear door is sealed, anyway."

Mortke gave the big German a peculiar look. "You've placed your pretty exhibits back there as you planned?"

Mortke chuckled. "Yes. One in the wireless cubicle, some in the crew's room, and others about the ship."

Von Kroben shivered. "It's bad luck, flying with dead men. I'll be glad when we're off."

Strange listened, cold at heart. The truth had crashed through his brain at Mortke's words about the ballonets. There were no germ-filled bombs as he had suspected. The gas-cells of the huge ship must also be loaded with the virulent bacteria of the Red Plague. These fiends meant to abandon the ship, guiding it by that wireless relay to a crashing end in Paris. The gas would rise, but a vast cloud of germs would be released to start a horrible wave of death . . .

"Get out of those coveralls," ordered the spy, coldly. "And take off the gloves. You won't need them."

In a minute Strange stood in his French uniform, hands and face bare. Mortke jerked his head toward the rear door.

"Why not add him to the exhibits, *hein?*"

"Open that door and take a chance? Not I." Von Kroben glared over the Luger at Strange. "You may be one of *Fraulein Doktor's* agents—or you may be an Allied spy. But when you go out that door into space, the end will be the same."

"At least," Strange said grimly, "I'll have the satisfaction of knowing you'll pay for this hellish business!"

Von Kroben snorted, then an uneasy look came into his eyes. He stared through the huge goggles, trying to read Strange's face.

Mortke made an impatient gesture. "Shoot him and throw him out of here. We're only a short distance from the Front, and there's no time to waste."

"There's something here I don't like," muttered the spy. "This devil almost tricked me out of my eyeteeth tonight. He may have arranged evidence against us."

Strange was trying desperately to probe into the Prussian's mind. Their brains were not *en rapport*, but he could sense some of the man's swirling thoughts.

"You will never collect that blood-money, *mein Freund*," he said harsh-

ly. "*Fraulein Doktor* has full proof, and also a complete report will be in French hands by midnight!"

"He's lying to save his neck!" rasped Mortke.

Von Kroben lifted the Luger. Strange tensed for a last effort, but Schlossen broke in with a gruff exclamation.

"There is the Front, already. Here I leave you, *mein Herren!*"

He made a last quick survey of the pressure dials, and valved gas for one of the ballonets. Then he picked up a Paulus pack chute from the floor. Von Kroben hesitated as Mortke hurried to the bow and glanced down. The big German returned to the signal board, clicked the toggles. One by one, the four engines went dead. Strange saw an oddly significant look flash between Mortke and von Kroben.

"I'll wager the chicken-hearted dumb-heads jumped the second they cut off their engines," Mortke said drily to Schlossen.

Schlossen was quickly fastening the parachute harness about him. "And I will soon be with them," he growled. He turned, with his hand on the catch of the cabin door. "I have carried out my part," he said with a threatening note in his voice. "See that you don't forget when it comes to the money."

"Have no fear," snapped Mortke. "You will get your reward."

Schlossen wheeled. Strange felt his scalp creep. His mind must be playing him wrong . . . But if he were right, it meant a chance for him.

Mortke's eyes flicked toward von Kroben. He nodded. The spy swung the Luger, calmly squeezed the trigger. There was a crashing report, a spurt of flame. Schlossen stumbled, fell with a bullet in his brain.

THE horror of that cold-blooded murder almost numbed Strange, but he was partly prepared. Before von Kroben could jerk the Luger back to cover him, he plunged for a frantic tackle. The pistol roared above his head, then he hit with pile-driver force. Von Kroben went down with a thud and a screeching oath. Strange clawed for the gun, and flipped the muzzle up at Mortke before the dazed Boche could strike.

"Get back!" he rasped. As Mortke stepped toward the bow, he jumped to his feet. "Stay where you are," he ordered von Kroben fiercely. He cast a swift glance down from the nearest window. Through broken clouds, he could see the jagged red outline of the Front, far below. The wind had strengthened at the higher altitude. He could see that the ship was drifting northwest at a good speed.

He fixed his green eyes on Mortke, and his voice cut through the stillness of the cabin. "Switch on those two electric motors in the forward nacelles. Then turn back into Germany. Make one break, and you'll get what you ordered for Schlossen!"

Murderous fury blazed in the big German's eyes, but he slowly moved toward the switchboard by the massed batteries. Strange pivoted to watch



him. Suddenly there was a ripping sound from the rear of the cabin. The sealed door tore through the pasted strips of paper, and a gauze-masked figure sprang through the aperture. A pistol swerved toward Strange.

"Drop the gun!" came a taut command.

Strange's finger was closing on the trigger—but as he heard that low voice, blank amazement gripped him. Karol! He must be losing his mind. He took a half-step forward, lowering the pistol.

"Stand still!" she said hoarsely. Then he remembered his made-up face. She thought he was the Prussian.

"Karol!" he said quickly, "don't fire. I'm not von Kroben."

She gave a convulsive start. In that instant Mortke leaped. One huge paw knocked the gun from her hand. Before Strange could fire, the German had spun her around as a shield. As Mortke sprang, von Kroben lunged up at Strange. Strange whirled, but the spy had seized his gun-arm, driving the muzzle upward. A shot blasted into the ceiling, ricocheted from a frame.

With a snarl of triumph, Mortke hurled the girl aside. Strange saw her gun clutched in the giant's hand. The weapon flashed down at his head. He flung to the side, but the movement came too late. The pistol struck with a stunning force. He heard Karol scream, then the cabin seemed to drop out from under him. . . .

## CHAPTER V

### THE OCEAN TOMB

WHEN his senses returned, he was lying on the floor, hands bound behind his back. A blinding pain stabbed through his head. He forced his eyes open and saw Karol tied to an upright girder in the center of the cabin. Von Kroben was bent over the switchboard by the batteries. The soft whir of electric motors came vaguely from the forward nacelles. The air in the cabin was bitterly cold, though the door at the rear had been closed again.

Mortke was busy with the ballonet valves. Strange fixed his aching eyes on Karol. They had torn the gauze windings from her face. It was an ivory white, and her dark eyes were shadowed with despair, but as she saw Strange look toward her, a brief light came into her face. Von Kroben turned in time to catch the expression.

"So, *Fraulein*, you still think your wonder-worker will manage to save you?"

She did not answer. Von Kroben came forward, looked down at Strange. "A clever trick," he jeered, "having the *Fraulein* volunteer in place of that mechanic who killed himself. It almost succeeded."

Strange met his ugly grin coldly, and Mortke turned impatiently from inspecting the compass. "Keep your mind on our work," he snorted. "With this wind, we have less than fifteen minutes before we cut loose."

"The relay set is ready," said the spy. "And I just checked the control set in the plane."

There was a note of harsh uneasiness in Mortke's voice as he spoke again. "You're sure the automatic colored guide-flares will go off tonight instead of tomorrow?"

"I've told you a dozen times—yes. But even if only one went off, I could tell where to crash the ship," von Kroben said impatiently.

The spy turned back to Karol. "You did us a favor, after all, *Fraulein*. There might not have been such a good wind tomorrow. This way, the germs will spread nicely. Paris will be a morgue in forty-eight hours."

Her eyes closed, and Strange saw her shudder. But in a moment she looked at the spy with eyes that showed no fear—only contempt.

"You may succeed, but they will find you and burn you alive," she said steadily.

"You give me small credit for having been your pupil," he mocked her. "We have planned carefully. The French will shoot at the ship—after the electric motors have permitted us to get to the city unheard. They will think their gunners brought it down, and the dead men back there will look like an ordinary crew. France will think the plague was spread by those bodies Mortke dropped. And our assistants will be quietly—ah—removed, so only Mortke and I are left."

Mortke looked down at Schlossen's body. "And I will take good care," he said meaningly, "that you do not get behind my back as you did with that fool."

"There is money enough for both of us," snapped von Kroben. Then a slow grin came to his lips. "I wonder what those stupid mechanics thought when their parachutes failed to open," he said thoughtfully.

Mortke gave him a long, cold look, and went back to the bow. "We are under the clouds," he said gruffly. "It is time to release the weights and nose her down."

Von Kroben turned toward the sliding door as Mortke reached for a looped cable which ran back toward the catwalk. The big German stopped.

"What are you doing?" he demanded.

The spy motioned toward Strange and Karol. "You think I would leave them in here? Suppose they got loose and switched off the relay?"

"Shoot them, then!" rasped Mortke. "We haven't time to throw them out."

Strange wrenched furiously at the belt which bound his arms. It did not give. Karol met his frenzied eyes with a hopeless look.

"It is no use, Philip. But at least, we will go together."

"So! Lovers!" Von Kroben laughed on an ugly note. "I might have guessed—" He broke off sharply, and spun around with an oath. Strange heard it at the same moment—the rapid, broken buzz of a wireless spark gap.

Mortke whirled in astonishment, then plunged toward the rear door. As he flung it open, the staccato rasp of code signals abruptly ended. There came a clatter of feet, a shot, then Mortke's voice rose in a shriek of agony.

VON KROBEN was halfway to the door. Mortke's huge bulk tottered back through the opening. A gun blasted again. Von Kroben fired wildly past the falling German. A figure catapulted out of the passage, and von Kroben went down under its savage onslaught.

A pistol slithered along the cabin floor. Strange saw a fist crash into the Prussian's face. Von Kroben groaned, made a frantic effort to seize the other man's gun. Metal smacked against flesh, and the spy was suddenly limp.

"André!" shouted Strange. "How in Heaven's name—"

The little Frenchman gaped across the cabin. "Strange! *Nom de Dieu*, I thought these devils had killed you."

His face was badly battered, and one eye was almost closed. Strange stared at him as André hurriedly loosened his bonds.

"What happened to you?" he asked anxiously.

"I got these souvenirs in killing two Boche pigs," said André grimly. "One back near the planes, so I could get his dungarees. The other that poor wretch they thought a suicide. He caught me sneaking up into his nacelle. I barely got up to the catwalk before that other volunteered to—" He stopped, gazed blankly at Karol.

"*Sacré bleu!*" he cried. "But it is a woman!" Watching Strange release Karol, the little Frenchman shook his head. "I do not understand. Who is this?"

"She is an agent who was trying to save Paris," Strange said shortly. His eyes met Karol's in quick warning.

"Non!" exclaimed André. "There is something wrong here. This is the one who escaped in that Breguet."

Strange started to speak, but Karol laid her hand on his arm.

"There is no need to lie, now." She faced André quietly. "I am German, *monsieur le commandant*. But there are Germans who do not make war on innocent women and children."

André's shrewd face was for once a study in stupefaction. He gazed from Karol to Strange, then a light dawned in his eyes.

"Ah, you know this pretty one, *mon ami!* You have met somewhere, before." Then, before Strange could answer, he nodded slyly. "Now I know why Rosseau did not catch *Mademoiselle la Docteur*."

Strange was silent. André gave Karol a long look. "Fate—it is a curious thing. That of all women, you should be the one he loves."

"It has never made any difference—in our work, *monsieur*," she said quietly.

There was a swift flash of lights ahead as she spoke. Strange jumped to the bow.

"Searchlights from Vincennes!" he shouted. "They're coming on all around Paris."

André took a hasty glance. "Then my warning was received!"

"What did you tell them?" Strange demanded.

"To send all squadrons to attack this



monster! I was afraid I could not keep these butchers from dropping their plague bombs—"

"There are no bombs!" rasped Strange. "The ballonets are filled with germs!"

André turned ashen. "Then anywhere it drops, that horrible disease will start!"

"Right!" said Strange grimly.

"But if they set it afire—" André shivered—"we will die a terrible death—but Paris will be saved."

"No—it will not burn," Karol broke in. "They have helium in the cells."

Strange dashed for the wireless cubicle. André followed anxiously.

"What are you going to do?"

"Warn them to keep clear! There's only one way we can wreck this ship without starting the Red Death."

"But I don't understand."

Strange stepped over a stiffened form lying on the floor. He grimaced. Here was one of Mortke's exhibits.

The transmitter switch was still on. Strange gripped the key, began to pound a call to the Eiffel Tower station. It was answered swiftly, but before he had tapped out half a dozen words, there was a scream from the cabin. He sprang up and raced forward. The cable along the catwalk jerked under his feet. The Zeppelin lurched violently, nosed down at a steep angle.

Strange was almost catapulted into the cabin. He had a glimpse of Mortke, blood streaming through his gauze mask, and from a frightful wound in his side. The huge German still held the looped cable end. Karol lay on the floor in a crumpled heap.

AS Strange saw her there, murder flamed into his heart. He leaped for the Boche, but Mortke's last desperate effort was ended. A glassy look swept into his eyes. He dropped like a felled tree.

Strange knelt anxiously beside Karol. There was an angry red mark on her cheek, where Mortke had struck her. He listened to her heart, and with relief heard it beat strongly.

The Zeppelin rocked into a steeper plunge. He placed Karol against the wall of the cabin, pulled himself up and seized the elevator control. The wheel was hard down. He braced himself, dragged the nose back to level. He heard an oath, looked back to see André pick himself up from where he had fallen over the batteries. Von Kroben was still unconscious, his body twisted around grotesquely.

The airship pitched in a sudden blast of Archie. Strange lashed the elevator at full climb position, whirled the rudder control. The big ship veered away from the ring of Paris defenses. Searchlights flashed after them, and pursuing shrapnel burst in a hideous roar.

André dashed back to the wireless cubicle. Strange set a straight course for Dieppe, the shortest run to the sea. The storm of Archie faded as Paris was swiftly left behind. He made a hurried survey from the bow. Scattered searchlights were springing up ahead, and he could see planes climbing after

the ship. They were not in range now, but before he could get to the sea . . .

He looked from Karol to the parachute pack Schlossen had put on. Swiftly, he unbuckled the harness about the dead man's body. Then a thought sent a cold chill through him. What if this parachute had been purposely damaged, too, in case Schlossen got away without being shot? He dropped the pack, ran to the wireless room for André. The little major looked up despairingly.

"They are ordering the planes and the gunners to bring us down. I try to tell them—but they think it some Boche trick."

"Never mind now," Strange hurried him back to the control cabin. He opened the trap to the plane, motioning for André to go down the ladder. "See how much fuel there is in the tank!"

André stared at the swaying rope ladder, but went down without comment. Strange ran across the cabin, lifted Karol in his arms. Her eyes opened confusedly.

"I'm all right," she said in a weak voice. "He jumped—so suddenly . . ." Her words trailed off.

Strange lowered her through the trap, shouted at André. The Frenchman started as he saw the girl's dungaree-clad form.

"Get her into the rear-pit," Strange ordered. "See that her belt is fastened."

"But what of you?" protested André.

"Quick! She might slip!" Strange ignored the question.

André drew Karol down into the ship, secured the safety-belt. The light from the cabin shone down through the trap on her white face. A mist came over Strange's eyes as he gazed at her. For a moment more he knelt there by the trap—then he pulled up the rope ladder.

"Turn on your switch," he said huskily to André. "There's some kind of a starter in the pit."

The little Frenchman looked up in dismay. "You have tricked me! I will not do this thing!"

"There's a parachute in the cabin," Strange said calmly. "I'll use it later."

"What are you going to do with the ship?" André cried, alarmed.

"Dive it into the sea. Start your engine!" Strange barked.

"No, no! Let me stay with the Zeppelin!" André's voice was an agonized wail.

A searchlight probed up at the airship. Strange jumped as he saw a Spad climbing furiously, almost within firing range.

"Pull the release when I cut loose your wings!" he shouted down at André. He raced to the thin lines which secured the wing tips.

The Spad snarled up for a vicious fusillade. Tracers tore redly into the Zeppelin's side. Strange cast off one line, and freed the other with fingers not quite steady. His heart skipped a beat as he saw a second plane zoom with guns flaming.

The airship bucked as though it had hit an air current. Strange held his breath as he saw the Halberstadt plunge down into the night. One of

the Spads kicked around for a hasty burst, but the two-seater was gone in a flash. Both Spads charged in toward the Zeppelin.

Strange cut off the cabin light. The glass bay in the bow shattered under a blast. He flung himself down as tracers streaked into the car. The sparkling lines swerved, vanished. He jumped up, seized one of the Maxims. As the other Spad roared in, he tripped the gun.

A hot stream burned the air close to the charging ship. The pilot sheered out precipitously. Strange fired again, as close as he dared. The fiery trail of the Maxim slugs shot past the Spad's tail. The plane ripped around in a tight turn, and dropped two hundred feet in the thin air.

The Zeppelin was rising, freed of the weight of the Halberstadt. In a few moments, it was above the Spad's ceiling. The ship ran into thin clouds, driven on by the force of the high-g geared electric motors. Stonily, Strange held to his lone course, counting the minutes. The huge airship was racing with the wind—it would not be long. . . .

AT LAST he nosed down. The ship moaned through the clouds. He valved gas from two of the ballonets, and the Zeppelin plunged at growing speed. He waited until he saw a searchlight near the coast. Dieppe showed, a blur of lights being hastily screened, a few miles to the southwest.

Through one waving beam, he saw a plane flit toward the Zeppelin. The Spads had evidently followed, waiting their chance. He looked ahead. Nothing could save the death-laden ship now. It was diving as fast as a plane, straight for the dark, empty sea beyond.

Not until he could see the water, did he leave his post. Then he turned. He would put on the Paulus pack. It might not have been damaged. . . .

Strange suddenly went rigid. Something had moved, back near the open trap. It was von Kroben—and he had the pack chute strapped about him!

Strange fought his way up the slanting deck. Suddenly the spy saw him through the gloom. He gave a choked cry, jumped for the trap. Strange flung himself after the Prussian, clutched with desperate hands. The chute must be all right, or the spy would not have taken it.

Von Kroben slipped, and Strange seized him. One hand shot under the breast-loops of the harness. He drove the other into the straps at the back. The spy was raining furious blows into his face as Strange made a last attempt to drag the German into the cabin. Then the man's weight hurled him downward suddenly, swiftly.

Together, they dropped into space. Turning over and over, von Kroben fought madly to throw Strange off. Dread wrapped its icy fingers around Strange's heart. He had half expected to die—but this hopeless plunge through the dark . . .

The Prussian was clawing at the release ring. Strange locked his arms



hard under the harness. As the spy jerked the ring, he threw his legs in a tight scissors around the man's waist.

A crack like a pistol shot sounded from up in the night. There came a jolt which almost wrenched Strange's arms from their sockets. But for the scissors hold, he would have lost his grip. The parachute billowed out above them, and the frightful strain was lessened.

A white finger of light pointed up through the darkness. It swept over the diving airship. Guns blazed, down by the base of the light. A frightened cry burst from von Kroben's lips.

Strange stared down. The guns' red blasts were mirrored from a dark surface. Then he saw the sharp bow of a destroyer, as it raced after the falling ship. The black water seemed to be rushing up to them.

"The sea!" shrieked von Kroben. "We're doomed—we'll drown!"

Strange looked down at the water. He had mistaken the destroyer's light for one along the coast. This was the end. His strength was almost gone. He could never make it to shore. . . .

Above the spy's moan, he heard the roar of a plane. A flare bloomed above the plunging Zeppelin. The roar changed to the howl of hurtling wings. Strange smiled grimly. The Spad pilots were coming to end a job that needed no finish. They'd probably be decorated for it.

The waves seemed to sweep up hungrily at them, and von Kroben gave a sobbing cry. "Ach, Gott help me! I cannot swim!"

The words ended in a scream as they

sank into the sea. Strange freed his arms from the harness. Von Kroben seized him wildly as they came up. Then the wind-filled chute jerked him away.

The cold plunge for the moment brought back Strange's strength. He managed to get off his blouse, half-way unlaced one boot. A wave broke over him, and he came up, gasping. Above, guns broke into a savage chatter. Dazed, he saw a plane pitching down under a second flare. Then he saw that it was diving at him.

A rocket scorched from the ship. The guns snarled again. Strange looked up bitterly. The pilot was brave enough now, coming to finish a man already doomed.

There came a muffled crash. He saw the Zeppelin strike, its cabin ripping off like cardboard. The huge black ship went up on its tail, then dropped back into the sea.

The diving plane pulled up. Strange fought through a wave, stared up at the ship. It was the Halberstadt! The engine abruptly silenced. Cross-wind, poised above a wave, the two-seater stalled toward the water. Strange gave a gasping cry.

"No—for God's sake, no!"

A wave broke over his head. His heavy boots pulled him down. As he came up again, he saw the Halberstadt strike, crumple down into the sea. Another rocket flared up. He saw Karol's whitened face—saw André leap to a wing, dive into the waves.

Then the greedy sea closed about him. . . .

It was warm in the destroyer captain's stateroom. Strange downed the

brandy the little French major had brought.

"I stole it out of the mess," André said with a grin, "but in a good cause." Strange put down the glass, glanced out the tiny porthole toward the sinking Halberstadt.

"I owe my life to you," he began.

André hastily cut him short. "Not to me, my friend! Thank this pretty one who made me come after you!"

Strange met Karol's eyes, and at the look which went between them André turned away. Then, slowly, he faced back.

"Have you thought, *mon ami*—this is a French vessel." His eyes shifted toward Karol. "I am troubled . . ."

Before Strange could speak, the door to the stateroom opened. The destroyer commander entered, saluted André.

"Confirmation of your code message and your identity has just been received from Paris. I am at your service, *monsieur le commandant*."

For several moments André did not answer. Then he made a little gesture. "Full speed to Havre, if you please." His eyes went to Karol, and the ghost of a smile hovered on his lips. "There will still be time, *mademoiselle*, for you to be landed behind the German lines on that mission—if your pilot can be ready."

The color came back into Strange's pallid face. For a second an unspoken message of thanks went between him and André. Then he smiled into Karol's eyes.

"I shall be ready, *mademoiselle*," he said softly.

## Hell-Cat Haunt

(Continued from page 18)

Jerry filled him. For once, he wished only to be back on the drome, to talk over the mystery of Fraser's disappearance and the explosion with Iron Mike. Somewhere in the back of his mind was the suspicion that the two were connected.

As the patrol moved over a quiet sector, Koslov's free hand sought the passenger in his pocket. Moved by curiosity, he examined the back of the tortoise's hard-polished shell. Then gently, he turned Speedy over, and the big Hell-Cat's eyes blinked behind their goggles. Something was written there on the bottom. Brushing his goggles back, he read, "Take care of me. Give me a bath every Wednesday."

Under different conditions, the Hell-Cat would have laughed—but this was Fiddlin' Fraser's last request, and a serious request, probably meant for him. For young Fraser was gone. A sudden rush of wing from a high-slung shell turned Koslov's thoughts back to the war. "Okay, Speedy," he whispered, and returned the tortoise to

his pocket. "Today is Monday, and on Wednesday you'll get your bath. Your boss was a friend of mine."

BY now the patrol was directly over the Front and cleaving straight ahead, crossing to Germany's side of the war. Pat Ryan was deliberately hunting trouble. Koslov shrugged, and cast a critical eye on his twin guns. After flying for months on borrowed time, fighting was something that he took in his stride, and death no longer held any terrors for him.

Off to the left of the fast-moving point, a black puff ball suddenly bloomed in the sky—shrapnel from an enemy Archie. A reception committee was waiting to greet the Hell-Cats and discourage them. Koslov grinned. It promised to be a warm party.

The wings of Ryan's Spad waggled, and the patrol abruptly changed direction. An instant later, a second puff ball bloomed in the space they had just vacated. The Hell-Cats flew a zigzag course from then on, thwarting the

Archie gunners down in the hidden emplacements. They clicked off a mile or two, then veered sharply to the right at a signal. Familiar landmarks gave the Morning Glories an inkling of Ryan's intention. He was winging over to make war on the Hell-Cats' private enemy, *Jagdstaffel* Nine. It was a dangerous mission for so small a unit as a patrol to attempt, but surprise was the element upon which Ryan was gambling their lives.

In a few seconds, the patrol leader's keen eyes had located and identified the camouflaged hangars. Luck was with the Hell-Cats, for the enemy morning patrol had already taken off, bent on their own business, and only a few running figures, fleeing from the approaching storm, could be seen stirring on *Staffel* Nine's drome.

Pat Ryan gave the signal to break formation. It was now every Hell-Cat's privilege to attack as he pleased. Seven roaring props pointed earthward as one, and the wild race for first blood was on. Koslov, tailing his mates and



biding his time, withheld his fire. Not interested in the bewildered ground-men, he was after bigger game.

A rain of howling machine-gun lead, fired by desperate Jerry gunners, attempted to break up the Hell-Cats' drive. Green flame danced on the muzzles of twin Vickers in answer, and the fight was on. Koslov swooped out of his dive, leveled off and dragged the drome in a full-gunned rush. His eyes sought a target, and found one—a low, rambling, camouflaged shed that stood off by itself. Whether it housed fuel or ammunition made no difference.

Reaching the far end of the drome, he kicked his bus around and came back more slowly this time. From the bomb rack he removed an iron egg and set himself. Now! His fingers opened, and the steel container of concentrated death sped down. The big pilot watched it explode in a burst of greasy yellow flame. His lips tightened. He had missed!

Taking a long chance, he began to rudder the Spad around in tight circles. The shed was his objective again, and another bomb was in his hand. For a split second, the ship's rolling gear seemed to hover and make contact with the roof. Taking deliberate aim, he tossed a direct hit over the side, and at the same time lifted the Spad in a swift-climbing turn toward momentary safety.

A thundering detonation below jarred him to the very core. Half-stunned, he fought a desperate battle to keep his blast-driven bus under control. Like a missile tossed by a giant hand, the little craft hurtled upward, and Koslov lived a lifetime in that danger-filled moment. Then, slowly, the terrific speed diminished. The Spad stood on its tail and teetered there, and the big Hell-Cat won the right to keep on living when he forced its nose down to the horizontal. The memory of that harrowing experience would always remain with him.

Far down on the ground, *Staffel* Nine's drome had ceased to exist. Building and canvas hangars were fast being converted into red ruins by the flaming thunderbolt Koslov had set off. His zest for further action that day was gone, and he was glad when he saw his Morning Glory mates finally chuck the party and come slanting up to gather once more in a rendezvous at seven thousand feet. Out of habit, Koslov counted ships, and breathed a sigh of relief when the total checked. The vaunted Hell-Cat luck was still holding good. Seven pilots had started out to deliver Iron Mike's mandate to the Jerries—and seven pilots were returning.

QUICKLY they slid into their accustomed places, and the formation shoved off. Pat Ryan led the way deeper into Germany; then, climbing to the maximum ceiling, he swung to the left in the beginning of a great, circling course. Ryan's strategy was that of the football field. He planned to return to his own side of the war by slipping over the weakest sector in

the enemy's defense lines.

Throttles full out, the patrol high-tailed for home. Archies barked futilely at them as they swept by. Once or twice, lone Jerry scouts warily closed in to look the Hell-Cats over, only to return and scuttle away after one glance. Such was the reputation of Iron Mike's hellions up and down the full length of the Western Front. As the patrol worked its way up closer to the lines, the Hell-Cats could see both sides fighting down below in the mud. Big guns pounded away, forever changing and rechanging the map of France. Fascinated, Koslov watched a thin green line of men move slowly over the uneven earth, their objective a scarlike crack in the tortured ground some two hundred yards in front of them. A series of short, jerky rushes behind a nicely laid barrage put victory within their reach. Koslov held his breath. Things looked black for the defending Allies.

And then it happened. Out of nowhere came an H. E. shell, followed by another that landed on top of the threatening green line and snatched victory from its grasp. The big Hell-Cat shut his eyes for an instant. When he opened them again, the thin green line no longer existed. The shells had buried it in a smoking grave.

Glad to look away, Koslov discovered that Pat Ryan had by this time safely guided the patrol back to the Hell-Cats' side of the war. The ruins of Alons took shape beneath the returning Morning Glories, and they began to toss off altitude in a long, downward glide. Alertly they watched the wings of Pat Ryan's crate, waiting to see if he would signal for the time-honored bird dance that would let those at the home drome know that the patrol had plucked another handful of tail feathers from the proud German eagle. But out of respect for the Hell-Cat dead who had gone West in the early-morning mystery fire and explosion, the patrol leader dispensed with the ceremony, and one after one, the Morning Glories touched wheels to the tarmac and bugged their way to a full stop on the runway.

For the benefit of the expectant bird herder who came over to inspect his ship for bullet holes, Koslov shook his head in the negative. "Lucky this morning, soldier," he said. "Jerry never had a chance after we got the first shot in." He turned a worried look in the direction of Buzzards' Row and asked, "How are things over there?"

The enlisted man's face sobered. "Not so good, sir," he answered. "Four were killed—two officers and two enlisted men. But they found only three bodies, my two buddies and Lieutenant Fraser. Lieutenant Lambert, the new officer who just came up to us from the Pool, must have been blown to bits."

Koslov's sharply inhaled breath made a whistling sound. "Who identified the dead officer as Lieutenant Fraser?" he asked.

"I'm not sure, sir," the bird herder admitted, "but I think it was Captain Keefer who made the identification."

Koslov's brow furrowed. "Okay. Much obliged, soldier," he said, and moved

away to overtake Pat Ryan halfway to Wing.

Together they stood facing the Old Man, seated behind his battered field desk. The patrol leader clicked off a salute and reported, "As you directed, sir, we gave the Jerries hell." It was a simple report, but it was enough; for Ryan, like others of the hellion brood, had learned that Iron Mike did not relish the details of carnage and killing.

For a brief moment, the Old Man's eyes studied the patrol leader's face. "Bring your own men back safely?" he asked.

"Yes, sir," said Ryan.

Iron Mike relaxed. "Nice work," was his only comment. "You may go now, Ryan." The familiar smile softened his grave features. "That is, if you have any place to go," he added.

"I was fortunate, sir," the patrol leader told him. "The usual luck of the Irish, you know. The fire passed my cubicle by."

After the door had closed on Ryan, Koslov addressed the skipper. "What about Fraser, sir?" he asked eagerly. "I'll risk a year's wages that the lad was not in his cubicle when the explosion went off."

Iron Mike tugged at his mustache. "You and I both, captain," he finally agreed. "I have my doubts, but in the face of Captain Keefer's undisputed testimony, I am left with no alternative. The dead officer will be buried as Lieutenant Fraser."

Before Koslov could protest, the Old Man hastily explained how he had returned with Keefer to the smoldering ruins that marked the center of Buzzards' Row, and the Operations Officer, without the slightest hesitation, had picked out the fire-warped tin shell from which he had rescued the corpse. Iron Mike cleared his throat. "It was the cubicle between yours and Lieutenant Lambert's," he said, "and that was the one Lieutenant Fraser occupied."

"I still can't believe it," Koslov argued doggedly. "Under the stress of emotion, Keefer might have been mistaken. Aren't you even going to make an inquiry into Fraser's previous disappearance?"

Iron Mike shook his head. "No," he said. "Even to hint of murder, at such a trying time as now exists, might upset the balance of the whole brood. Do you see what I mean?"

Koslov saw only too well. Investigations were dangerous things when men's nerves were already rubbed raw. But as he left the Old Man, he decided that he would conduct his own private investigation, and no one would know of it.

## CHAPTER II

### THE FIDDLER'S GHOST

THAT evening, beneath a reddened sky, while big guns in the distance throbbed a funeral dirge, the Hell-Cats buried their dead. Standing with uncovered heads in the dusk, they listened to Iron Mike recite a simple, homely prayer that came from his great heart, rather than from any book. "Lord of



the Hosts," his deep voice intoned, "be kind to these boys who come to you in their youth. Amen."

A spade clinked on a stone, and the Hell-Cats walked away into the night. Some of them would try to forget it all in drinking. Some would merely slip off by themselves. And every one of them would always remember.

Koslov set up a spare cot in Pat Ryan's cubicle and bunked with the Irish Hell-Cat until the ground men could restore Buzzards' Row to its former state. On the night following the funeral, Ryan went off to the nearest *estaminet* for an hour or two of relaxation, and Koslov stretched out on his cot to read. He must have dozed off, for he suddenly awakened with an uncomfortable feeling that something unnatural was taking place.

Gathering his wits quickly, he lay back and listened. There could be no mistaking it now. It seeped through the thin walls of the hut to his ears—and it was the soft, haunting sound of a violin! Blood running cold in his veins, Koslov slowly sat up. Icy fingers of fear clutched at his throat.

"Fraser, where are you?" he whispered. For he had recognized the melody. It was the plaintive little German folk song that Fiddlin' Fraser had always played in moments of forgetfulness. Koslov steeled himself. Catlike, he moved to the center of the cubicle and hesitated. The ghost music was all about him. It seemed, almost, to come up out of the ground at his feet, as if from a grave.

A short distance away, a door banged loudly, and heavy boots pounded along the duckwalk. Some one was rapidly approaching. The big Hell-Cat crossed the floor to his door and waited. While standing there, he heard the last plaintive note of the violin fade away. His hand moved, the door swung open, and he stepped out, to block the path of the hurrying man.

"Hello, Koslov," a nervous voice in the darkness greeted him. "You gave me a bad moment, coming out like that."

The big Hell-Cat thought quickly and decided not to mention the disturbing music. Perhaps he had been dreaming. "Where are you bound for, Keefer?" he asked, instead.

"I couldn't sleep," the ground officer confessed. "The pain of my burns is giving me hell, so I thought I'd walk around until I got tired out."

Koslov glanced at Keefer's bandaged hands. "That's tough," he said. "Come on. I'll stroll as far as Wing with you."

They were out in the middle of the tarmac when Keefer halted abruptly. Suddenly, without warning, he brandished a bandaged fist at the flaming sky that marked the war at its worst. "Damn you!" he swore bitterly. "I gave you everything I had, and now you've abandoned me."

Koslov could only stare. "What's eating you, buzzard?" he finally asked.

Keefer's rage collapsed like a punctured balloon. "Nerves," he answered jerkily. "I've spent nine months on this

lousy drome—seven more than any of you Hell-Cats. Right on this spot I saw my old outfit blown to Kingdom Come by a shower of H.E. shells. Only two of us escaped. I'm one of the two, and the other is cooped up in a hospital somewhere."

Koslov shrugged fatalistically. "You're lucky, at that, Keefer," he said.

"Lucky, hell!" the ground officer spat back. "As if I hadn't taken enough punishment already, the powers that be ordered me to stay in this graveyard—reassigned me to the Hell-Cats who were coming up to take over this sky sector." He lapsed into a blank silence.

There was nothing that Koslov could say, and he was relieved to get away from Keefer outside of Wing. Neither of them had mentioned the phantom concert, yet Koslov was sure Keefer had heard it, too.

Iron Mike was busy with a lengthy report when Koslov entered his office. "Sorry to disturb you, sir," the big Hell-Cat said, "but I had to see you."

"It's a welcome relief, son," said the Old Man. "What's on your mind?"

Koslov fidgeted. "Do you believe in the supernatural?" he finally blurted out.

"I have never had cause either to believe or disbelieve," the Old Man answered. "Why do you ask?"

Without further hesitation, Koslov told of the nocturnal music that had awakened him. The skipper sat like a graven image, and only his deep eyes moved. Finally he stirred. "Yes, it is uncanny," he agreed. "You're neither drunk nor suffering from hallucinations. But if I were you, captain, I would keep that story to myself."

Koslov stood up. "I intend to, sir," he answered, and went back to his hut in Buzzards' Row—but not to sleep.

**A**FTER a restless night, he was up before dawn, wandering aimlessly about the dome. Unmindful of a steady rain that was churning the ground into a quagmire, he sloshed his way through the mud to the rear of the cubicles and stopped. Vaguely he could distinguish the yawning crater made by the previous morning's mysterious explosion. His own Nissen hut, as well as those of Fraser and Lambert, had stood on the very lip of the excavation. Careful of where he trod, he began to circle the deep hole. Reaching the point farthest from Buzzards' Row he found his way blocked by a pile of tumbled debris, and he halted once more. Somewhere near where he was standing should be the old, abandoned cistern—last memento of the peaceful French peasants who had occupied the land before the war's invasion.

A sudden thought struck Koslov—a thought that had to do with his steadfast belief that Fiddlin' Fraser still lived. It took a moment to orient himself in the tricky gray light of the leaden sky. The mouth of the cistern should be directly beneath the mound of twisted tin and rubbish in front of him. He settled to the task he had set himself, feeling all the time that he was playing the fool. It was slow, laborious

work, but he kept at it. Sheets of fire-twisted metal cut his fingers until the blood ran from them. He was struggling with a heavy boulder when a sudden sound made him glance up, and he saw Ryan and Keefer ploughing toward him through the mud. Koslov swore under his breath as he straightened up. Explanations would be in order, and he had none to give.

Pat Ryan saved him by speaking first. "I heard you making a hell of a racket out here," he said, "and I was just starting around the cubicles to investigate when I ran into Keefer. He was bent on the same mission." Ryan nervously shifted his feet in the sucking mud. "It's all right, buzzard," he suddenly blurted out. "Keefer just told me about last night's ghost music."

Koslov turned to meet the ground officer's troubled gaze with a look of understanding. Keefer licked his dry lips. "You wouldn't talk last night," he said to the big Hell-Cat, "so I didn't either. I was afraid you'd think me barmy."

"So it was true?" Ryan cut in.

"Yes," Koslov admitted reluctantly. "And I'm wondering now how many of the other buzzards heard the same thing. If the yarn ever gets out, hell will be a pleasant place to live, compared to this drome."

Ryan indicated the pile of rubbish. "Not being a believer in ghosts," he suggested, "you're thinking that Fraser escaped death in the explosion and is hiding down there, with his violin. Is that right?"

Koslov hesitated. "I'm not thinking," he admitted. "Just hoping."

Ryan bent over to take hold of a splintered timber. "Let's get to work," he growled, "and if Fiddlin' Fraser is playing a trick, I'll make him wish he had died in the explosion!"

Keefer, handicapped with his bandages, made no move. "You're both wasting your time," he argued. "I carried Fraser's body out of the fire, and I saw him buried yesterday at sundown."

Neither Hell-Cat paid him any heed, but went on working until they had cleared away the last of the movable wreckage. Koslov wiped his brow and looked hopelessly at Ryan. Their efforts had been in vain, for they had found nothing. The walls of the cistern had collapsed, filling the excavation with a mass of weight that would have crushed any living thing.

"Satisfied now, buzzard?" Ryan asked.

The big Hell-Cat shrugged. "For the time being," he replied.

Pat Ryan washed his hands in a convenient puddle and cocked an eye up through the falling rain at the low-hanging cloud ceiling. No patrols, either Hell-Cat or enemy, could hit the blue that morning. "Dud weather, boys," he announced. "Nothing to do but eat, sleep and be grateful that no Jerry can knock you out of the sky and the world today."

Together, the three Hell-Cats turned the corner of Buzzards' Row and went across the tarmac toward the mess hall. Koslov halted just inside the doorway, and all three stopped. A pilot was talk-



ing to a group around the table.

"I heard it with my own ears," he was insisting, "and I was cold sober."

One of the group laughed nervously, and the speaker glared. "Laugh, you mugs," he snapped, "but I'm telling you that Fiddlin' Fraser's ghost returned to the Hell-Cat nest last night."

"You probably heard the phonograph playing in the recreation hut, Murtha," another listener said.

Murtha exploded. "Think I can't tell the difference between canned music and what Fraser used to play for us?"

Koslov dropped into a vacant place at the table. "Dry up, buzzard," he advised. "What harm could poor Fraser do us? He was a buddy of ours."

The subject was dropped, after his quiet remark. Pilots ate their breakfast in silence and hurried from the mess shack, only to gather again in small groups to discuss the phantom violinist. By noon, the Hell-Cats' nest seethed in a ferment of unrest.

Keefer, chancing to meet Koslov on the duckwalk, confessed his own secret fear. "I'm not afraid of anything that walks on two legs—or on four, either," he said, "but just the thought of encountering a spirit drives me haywire. I've been like that ever since I was a kid." The ground officer trembled violently, and dark shadows gave a haunted look to his face.

Koslov felt sorry for him. "Keep your chin up, buzzard," he advised. "The dead will never hurt you. It is the live ones you have to guard against."

**M**ID-AFTERNOON saw the rain let up, and a vagrant breeze blew the heavily laden clouds out toward the sea. The pilots were glad to quit the gloom of their cubicles. Laughter was heard again, and on the surface everything seemed normal. To keen observers like Iron Mike and Koslov, the Hell-Cats' laughter did not ring true, however, and a strange tension still filled the atmosphere.

Some time later, when the Bat Patrol was making for its goodnight look at the Front, Koslov strolled over to the top of the runway. It took only a glance for him to see that the rough, tough Bats of the night flight had suddenly resurrected most of their long-forgotten superstitions. More than one of them openly spat across the ring-sights of their twin guns. Peters, a veteran, reverently hung a pair of baby shoes inside the cockpit of his bus and bent down to confide to the watching Koslov, "My good luck charm. They'll ward off the evil eye."

The big Hell-Cat smiled. "Afraid of ghosts, Peters?" he asked casually.

"Yes—and no," Peters guardedly answered. "I'm not exactly afraid of meeting Fraser's ghost, but what bothers me is *why* he came back from the grave." His voice dropped. "Do you think that his spirit returned to warn us of some great danger that threatens?"

Try as he might, Koslov could not make a light answer. "Maybe so," he said, "but don't let that worry you. We're the Hell-Cats, you know, and

danger is our meat."

The two veterans smiled at each other, and Koslov hurried away to the sidelines. Then came the roar of impatient engines. Cherry-red flame belched from exhaust pipes, and the Bats disappeared into the darkness, to tilt with the danger at which Peters had finally laughed.

Koslov took his time in getting back to the cubicle he shared with Pat Ryan, and he was inwardly glad when he found the Irishman already there. "Not going to town this evening?" he inquired.

"No, sir," Ryan vehemently answered. "I've suddenly lost my liking for prowling around the countryside at night."

Koslov walked over to the table and idly lifted Speedy, the tortoise, from the small box that was his new home. "Seriously, Pat," Koslov said, "you aren't taking any stock in that ghost story, are you?"

The Irish Hell-Cat closed the magazine he had been reading. "Yes, I am," he admitted. "My mother used to tell me about the Banshees in Ireland, and about the Little Folk who dwelt in the bogs. And my mother never told a lie in her life."

Koslov was in no mood to argue the point further, so he said no more, and contented himself with a closer examination of the little tortoise.

Suddenly a piercing scream disrupted the stillness of the night and shocked them both into immobility. Ryan made the sign of the cross. "Holy Mother!" he whispered. "What was that?"

Again the agonized cry dinned in their ears—this time close by. Koslov held his breath. Then suddenly it came, floating eerily out of the ether—the first haunting notes of Fiddlin' Fraser's phantom serenade!

**T**HE big Hell-Cat's fingernails drew blood from the palms of his clenched hands, and he wavered in indecision. Should he go and investigate? Another maddening scream, this time right outside the cubicle door, galvanized him into action. He bounded out into the night and crouched there. Something came weaving toward him, gesticulating wildly and flailing its arms, as though fighting off some invisible attacker. Then, uttering a moaning sigh, the man collapsed at Koslov's feet as the ghost music settled over Buzzards' Row like a smothering blanket of mist.

"Hear it? Hear it?" the groveling man on the ground panted.

Koslov reached down and lifted the half-mad soldier to his feet. "Snap out of it," he commanded sternly. "It's only some one playing a record on the phonograph."

"No, no!" the enlisted man sobbed, and poured out an incoherent story that Koslov managed to understand. "I was on my way to the machine-gun emplacement when I saw him standing there on the lip of the gully. I was too frightened to move. Then he tucked his violin under his chin and looked right at me and smiled. I must have gone

haywire right then." The enlisted man began to tremble again, and Koslov laid a steady hand on his shoulder.

"Who was it you saw?" he asked.

The man made a brave attempt to pull himself together. "Lieutenant Fraser's ghost, sir," he said.

Just then the music reached its climax. A high, wailing note hung for an instant, then slowly faded out. The soldier suddenly jerked free of Koslov's grip and raced madly across the tarmac. The big Hell-Cat started after him, but checked himself in mid-stride and shrugged. Some one else would take care of the crazed man. He had a more important job to do.

Forcing himself on, he turned and plodded straight for the gully the soldier had mentioned. Some one fell into step at his side, and he recognized Pat Ryan, white of face, but doggedly determined. "I'm scared out of my skin," he growled, "but whatever it is, we'll face it together. It'll never be said that a Russian outgamed an Irishman."

They arrived at the far end of Buzzards' Row without mishap, and were circling the last Nissen hut when the big Hell-Cat stopped short and laid a restraining hand on Ryan's arm. "Pat," he whispered, "there's some one out in front of us there. I just saw him duck for cover behind that pile of empty fuel drums."

Ryan's bulldog courage overcame his fear. "Let's separate," he suggested. "You sneak around the right side of the pile. I'll take the left, and we'll box him in."

They waited until a drifting cloud blotted out the light of the moon.

"Now!" Ryan muttered.

Koslov leaped ahead, covering the ground in great loping strides. A discarded fuel drum blocked his path and he hurdled it. Pivoting on one foot, he staggered a bit and saw a figure loom up directly in front of him. Orange flame burned a hole in the night, and the hot breath of a bullet fanned his cheek. Stunned, the big Hell-Cat tried desperately to regain his footing, but his feet skidded on the oil-filmed earth, and he went down.

An ugly oath reached his ears. His unknown assailant was preparing to shoot again. "Sneaking rat!" the voice snarled. "You tricked me once, but I'll make sure of you this time."

Koslov, on hands and knees, was gathering himself for a last spring when a falling body landed on top of him and sprawled him out again. A blow from Pat Ryan's whizzing fist had felled the would-be killer—and not an instant too soon. Koslov grappled with the half-conscious man and easily wrested the lethal pistol from his grip. With a heave, the big Hell-Cat got to his feet.

"Thanks, Pat," he muttered.

"You all right, buzzard?" was the anxious question.

"Yes," Koslov answered laconically. "The louse missed me."

"Who is he?" Ryan asked.

The big Hell-Cat leaned over, and instantly stiffened in amazement. "Keefer!" he jerked.



THE two Hell-Cats dropped to their knees. An instant passed. Then Keefer groaned and opened his eyes. Fright still contorted his face. "Koslov," he mumbled thickly, and sat up. "Lord! I thought you were Fraser's ghost. I tried to shoot you!"

The big Hell-Cat frowned at the thought of his own narrow escape. "Yeah," he answered, "but don't remind me of it."

He and Ryan lifted Keefer to his feet. The Irishman, who had kept silent all this time, angrily exploded. "What's the big idea of ghost-hunting with a gun?" he demanded. "Do you want to bring the wrath of Heaven down on the Hell-Cats?"

Keefer flared up in turn. A note of hysteria shrilled in his voice. "To hell with the Hell-Cats!" he recklessly flung back. "I'm thinking of myself now. No ghost is going to drive me insane. I can't sleep. I can't think. Every day and night, I hear his fiendish violin scraping in my ears. I'll dig his body out of its grave and stamp on him."

Koslov's hand rose, and landed with a resounding slap on the ground officer's head. The sudden blow jarred the last semblance of madness from Keefer's brain, as Koslov had hoped it would. "Cut the gun on that kind of talk," the big Hell-Cat commanded.

Keefer swallowed hard and fumbled at his throat as sanity slowly returned. "Sorry," he said. "It won't happen again. I didn't know what I was saying."

The two Hell-Cats warily relaxed. "To hear you talk, Keefer," Ryan remarked, "you'd think Fiddlin' Fraser's ghost was haunting you and nobody else."

The ground officer laughed nervously. "You're right," he agreed. "I've been a fool. Fraser and I got along well together. Why, wasn't it I who risked my neck to drag him out of the fire?"

Before either Hell-Cat could answer, a drone out of the distant sky attracted their attention. Koslov was the first to identify the sound. "Hissos," he announced. "The bats are returning." He cast a thoughtful glance in the direction of the haunted gully. He hoped that the phantom violinist would not give them a ghostly encore that night. "Might as well go back and greet the bats," he suggested.

The three retraced their tracks. At the edge of the landing field, Koslov returned Keefer's pistol to him. The ground officer accepted it without comment and walked away, his humiliation plainly showing on his face.

"Queer bird, that," Koslov remarked, when Keefer was beyond earshot.

"I don't know about that," Ryan retorted. "If I'd been in his place when you came popping out of nowhere, I'd have pegged a shot at you, too."

The big Hell-Cat let it go at that. His eyes and thoughts were on the coveralled figure slowly clambering down from the cockpit of the first plane that had rolled to a stop in the flood-lighted area. He recognized Slater, leader of the night-flying Bats, and he moved out on the runway toward him.

"How did it go, buzzard?" he asked. Slater shook his head. "Lousy," he said bitterly. "Peters is gone. He went West in the only Archie burst that ever registered a direct hit since this war began."

A choking lump grew in Koslov's throat. "Silent" Peters had been a grand fellow. The vision of a tiny pair of baby shoes danced before the big Hell-Cat's eyes. Those shoes were the first ever worn by the dead pilot's son, and they had been his good luck charm. Would the little feet that had worn them some day travel over the danger trail as his father had before him?

Ryan's voice cut in on his reverie. "Tough it had to be Peters," the Irishman said, "but I knew it was going to happen. My mother used to say that whenever a Banshee appears, some one is sure to die."

Koslov's fingers touched Ryan's arm. Unable to speak, he motioned with his head, and the two Hell-Cats sought their cubicle.

Hours later, Pat Ryan broke the long silence. "A sou for your thoughts, buzzard," he offered.

His roommate looked up wearily. "I was just thinking," he said, that out of the original Hell-Cats, only four are still carrying on—the Old Man, Slater, you and myself."

The Irish pilot frowned. "That's a bad thing to be thinking," he remarked. "And I believe I know the reason behind your black thoughts, for all your bluffing. Fiddlin' Fraser's ghost is beginning to get under your skin, too."

"Bird dust!" scoffed Koslov. "The fiddling phantom doesn't worry me. It's the war that's getting under my skin, if you must know. I'm sick of it." A strange, sullen light flickered in the big Hell-Cat's eyes. "Tomorrow I'm going to hit the Old Man for a leave of absence."

Ryan lay back on his cot, an ironic smile twisting his lips. "Yellow!" he sneered. "You pose as a second Ajax, defying the lightning, but you don't kid me. The ghost has you hipped, just the same as it has me and the rest of the buzzards."

The blood drained from Koslov's face, and he surged to his feet. "You're a liar, you little runt!" he flung back. "And I've a good mind to slap your teeth down your throat for calling me yellow."

Ryan's smile widened, and he yawned a prodigious yawn. "Aw, go lay an egg," he retorted coolly. There was a pause. "Feel better now?" he asked.

Koslov growled under his breath. He'd known all the time that no ghost would ever chase Anton Koslov out of his own nest. Angrily, he again faced his tormentor. "And what's more," he announced defiantly, "before another twenty-four hours pass, I'll break that phantom myth by myself."

Ryan chuckled to himself. His efforts to anger the big Hell-Cat had not been in vain. He knew Koslov as few other Hell-Cats had ever known him. Once aroused to a fighting pitch, the Russian would keep his promise to break the ghost or die in the attempt—and the

odds were on keeping the promise. Before he dropped off to sleep, Ryan actually found himself feeling sorry for Fiddlin' Fraser's ghost. "Too bad it had to be you," he thought. "This big buzzard will take you apart just to see what makes you tick. The old ghost-breaker himself is now on your trail."

### CHAPTER III

#### DANGER UNDERGROUND

THE next day found the Hell-Cats clicking with their usual routine precision. Up before dawn, Koslov was busy with a cup of coffee in the mess shack when Pat Ryan sat down beside him. Their tiff of the night before was forgotten.

"Nice morning for hunting," the Irishman offered.

"Yeah," Koslov agreed. "But by way of suggestion, don't go out of your way to look for trouble when we get upstairs."

Ryan eyed him askance. "And why not?" he asked. "I'm feeling tophole."

The big Hell-Cat explained. "You may be," he admitted, "but the rest of the Morning Glories are not so chipper. Taut nerves, a sleepless night and heads buzzing with ghost stories don't make for good fighting."

Ryan nodded. "Okay, buzzard," he agreed. "I think I understand."

Twenty minutes later, the Dawn Patrol slanted up into the blue and hugged the ceiling all the way to the Front. After a quick bird's-eye view of the war, Ryan led them back to the nest. Old Iron Mike met them on the field and smiled silent approval. For the first time in days, he would not have to write out one of those dreaded death reports.

"The luck must be changing, son," he remarked to Koslov, who was passing.

"Yes, sir," the big Hell-Cat answered. "I have a hunch that things will break for us from now on."

High noon found Koslov stripped to the waist and squatting on his heels in the warm sunshine outside the cubicle. "Hey, buzzard," he called over his shoulder to Pat Ryan inside the hut. "Do you use soap when you bath a tortoise?"

The Irish pilot howled. "Now I know you're balmy," he finally managed to gasp. "Playing nursemaid to a turtle!" He moved to the door. "No, you don't use soap," he snorted, "but you might give the little dear a massage. It'll be good for his tender little skin." And he went away to tell the story to the other Hell-Cats.

Koslov took the kidding good-naturedly, and went on with his job. Half-filling a canvas bucket with water, he dropped the tortoise into it. For a good five minutes, he let Speedy soak, then fished him out again. "And that's that," Koslov told himself. "I've complied with your master's last request."

Speedy withdrew inside his shell, and Koslov tried to coax him out by tapping on his hard back. Suddenly he realized that the shell gave forth a peculiar sound. As he examined it more



closely, the top half worked loose in his fingers and came away. The big Hell-Cat stared stupidly at a folded piece of paper that rested on Speedy's real back covering. The top shell was only a concealing dummy, and contact with the water had loosened it.

Gingerly Koslov unfolded the paper and read it.

"Koslov:

A dangerous enemy is operating in our outfit. I stumbled onto him by accident, but could not learn his identity. He knows that I know. Tonight he tried to kill me—stabbed me while I dozed on my cot. I am going to hide out. If you receive no word from me by Wednesday night, you will know that I died. Be on your guard, and carry on.

Fraser."

THE big Hell-Cat stood like a man dazed. Then things began to clear up in his mind. He knew now why the tortoise had happened to be in his cubicle. He knew, too, why Fiddlin' Fraser had requested that Speedy be given a bath on Wednesday. It was like a message from the grave.

Koslov went back inside his hut and sat down. It was a long time since the Hell-Cats had been honored with attention from enemy agents. Almost too long, for Koslov and the other veterans had grown rusty. They had forgotten how to cope with such a situation. Savagely he railed at his own inefficiency. But there was still one thing to do, and he did it. He lit out for Wing and the Old Man.

Closeted with Iron Mike, Koslov handed him Fraser's message and the rest of the information. The Old Man read it and looked up, his face expressionless. "Son," he wearily announced, "I have suspected something like this for quite a time now, but our man, whoever he may be, is damnably clever at concealing his actions." With a sweep of his hand, Iron Mike cleared his desk of papers. "Let's reason this out together," he suggested. "The old process of elimination is still in order. Slater, Ryan and yourself are above suspicion."

Heads together, they checked rapidly. "Captain Keefer," the Old Man remarked, "sits in on our plans, and, in his official capacity as Operation Officer, orders our flight movements."

Koslov shook his head. "I'll grant that," he said, "but to my way of thinking, he is out. The very fact that he is a ground officer eliminates him. Not being a flyer, he has no way of contacting the enemy to transfer his information."

Iron Mike moved on down the list. The next ten names were those of recent replacements—all young pilots, recently hatched out of the incubators back in the States. Suddenly the Old man leaned back in his chair. "How about Fraser himself?" he asked. "Isn't it quite possible that his story of an attempt on his life might be an alibi to cover his absence from the drome?"

Koslov's eyes narrowed. "It is hard to believe that about Fraser," he said,

"but it is a possibility. So far, he is the only man we can't fully account for."

They arrived at the bottom of the roster as the afternoon hours waned. One after the other, Hell-Cats and enlisted men alike had been weighed in the balance, and only two names were on the suspect list—Fraser and Borio. Borio was a hot-tempered pilot of Latin extraction, whose hobby was collecting knives. He could split a target with a thrown knife at twenty paces, and Koslov had often admired his skill. However, the sole bit of evidence linking him with the mystery was his adeptness with the knife and Fraser's written claim that he had been stabbed.

"I suggest that you keep a close watch on Borio, sir," Koslov suggested to Iron Mike as he started for the door.

"I'll do that," the Old Man replied. "But what are your plans?"

Koslov smiled. "I'm planning to make the acquaintance of a ghost in a little while," he said lightly.

"Risky business, son," Iron Mike warned him. "Your ghost may turn out to be that, and nothing more."

"In that case," Koslov retorted, "I'll look damn funny out there, wrestling with a phantom!"

Koslov ate an early supper and wandered away from the drome by himself. To anyone who might be watching, it seemed an aimless course that he traveled. Once he stopped beneath a dead tree to examine its bark. Again, some distance farther along, he turned into a large clearing and sat down on a boulder. He was still sitting there when the swift darkness of the French night descended upon him.

Only then did he stir. Catlike, for all his great bulk, he arose and stalked noiselessly into the surrounding underbrush. His movements had a purpose to them. Every few paces he stopped and listened. Once the fluttering of a night bird's wings caused him to reach for his ready pistol, and the whispering of leaves in the trees stopped him short. But he saw nothing.

Guided by an uncanny sense of direction, Koslov beat his way back to the Hell-Cats' nest. To his ears came the rumbling thunder of many engines, and he halted, his face upturned. Dark shadows swooped between him and the sky. The Bats were winging out to toss dice with the Grim Reaper. He smiled and silently wished them good luck.

Taking advantage of the racket they made in passing, he abandoned his stealthy approach and pushed on ahead until further progress was stopped by a narrow, but deep, gully. Cautiously he looked down at its rock-strewn depth. Even a spirit would find it difficult to walk down there without betraying its presence, so Koslov settled himself on the ground to wait.

The minutes dragged into an hour, and still he waited, not daring to move, in spite of the growing ache in his cramped muscles. Passing shadows caused him anxious moments, and his eyes were beginning to play him tricks. A rat, its beady eyes gleaming, scuttled across his prone body, and Koslov swore. Then his keen hearing picked up

the faintest of sounds. It seemed to originate inside the bank on the far side of the gully.

The sound grew louder, and Koslov tensed for action. Part of the bank swung outwards. The dim outline of a man's head and shoulders appeared in the aperture. His whole body emerged, and for a second, the man stood still, listening. Once he looked directly at Koslov, and the Hell-Cat held his breath. Finally convinced that he was unobserved, the nocturnal prowler reached inside the hole and brought forth a bulky object.

Then, suddenly, a soft musical note floated up to Koslov. The phantom violinist was before him—tuning up his instrument for another of his ghostly serenades!

WITHOUT a second glance in Koslov's direction, the man clambered up the bank and stopped not six feet from where the Hell-Cat crouched. Leisurely he placed the violin beneath his chin and raised the bow. It was now or never. Koslov uncoiled like a giant spring, and went hurtling through space in a beautiful flying tackle. Flesh met flesh in a terrific impact. They fought on the ground, locked in each other's embrace.

Suddenly the violinist groaned and collapsed. "My wound!" he gasped. "It's open again."

Koslov released him, and they instantly recognized each other. The man was Fiddlin' Fraser himself—and no ghost.

"I'd about given up hope that you'd come," he said, smiling wanly up at Koslov. "Quick! We can't talk here."

Koslov helped him retrieve his precious violin, and Fraser led the way to the camouflaged opening in the gully bank.

"You first," Fraser ordered.

Koslov hesitated, for he did not yet trust Fraser. "No monkey business," he warned.

Fraser pushed him through the opening and followed. The big Hell-Cat could hear the door being closed. "Straight ahead," was the next command. "Thirty yards or so, and keep your head down."

Koslov obeyed. The low, narrow tunnel seemed endless, and he heaved a sigh of relief when told that it was safe to straighten up. Fraser struck fire and lit two candles that stood on a small table. The Hell-Cat looked around at the concrete walls of the room. A comfortable couch occupied one side, and there was even a rug on the floor.

"Built by the Germans during their previous occupancy of this area," Fraser explained. "There was another entrance down through the old cistern back of Buzzards' Row, but an explosion a couple of mornings ago closed that one up permanently. I was lucky to be here in the room at the time."

Koslov walked over and sat down on the couch. "What's the answer to all this?" he asked.

Fraser pulled up a chair. "German agents," he announced, and sat down. "If you look on the table here, you will



see a telegraph instrument, and code books for deciphering messages. The wire itself crosses the Front and ends up in Germany."

Koslov's eyes never left the speaker. "And are you the German agent?" he asked bluntly.

Fraser recoiled. Then a slow smile lifted the corners of his tired mouth. Without bothering to arise, he removed his jacket and opened his shirt. Koslov winced at sight of the crude, blood-stained bandages.

"German agents—or any other agents, for that matter—are not in the habit of stabbing themselves merely to establish an alibi," Fraser remarked quietly. "And if that doesn't convince you, take a look at these." He handed over a sheaf of well-worn papers. Koslov's eyes blinked rapidly as he read them. Fiddlin' Fraser was a D.C.I. agent and an authorized operator from Allied Intelligence headquarters!

"Satisfied now?" Fraser asked pleasantly.

The big Hell-Cat sheepishly nodded his head.

Fraser glanced at his wristwatch, and an uneasy look spread over his face. "Time is pressing," he snapped, "so I'll tell you what I know. A kid pilot, dying from wounds back in a base hospital, first turned the light of suspicion on this drome. Just a chance remark of his to a doctor set the wheels in motion. The poor kid's outfit had been trapped here, and wiped out by a barrage of H.E. shells. Then they ordered the Hell-Cats into the same graveyard to take up where the other outfit had left off. I received instructions, too, and one night, when I was prowling around in back of Buzards' Row, I saw a man climb down and disappear into the old cistern. I followed him to its edge, and made the natural mistake of peering down after him. He saw and recognized me. There is no doubt about that.

"After hiding around, waiting for hours for him to come out, I gave it up as a bad job and went back to my cubicle to sleep. What I didn't know was that a second exit led out into the gully. My bird had escaped through the tunnel, and was probably watching me the whole time. Later he slipped into my hut and stabbed me while I was asleep." Fraser smiled. "But I'd forgotten to take my tortoise out of my pocket, and Speedy's hard shell deflected the knife point. It was then that I decided to challenge the mystery of the old cistern and wait there for the assassin. I knew he'd put in an appearance sooner or later."

Fiddlin' Fraser paused and made a sweeping gesture with his hand. "I found all this that you see," he said. "A completely equipped clearing house. Enemy spies gather information behind our lines and hand it over to Mr. X, who in turn telegraphs it on to Germany's *Nachrichtenamt*."

KOSLOV leaned forward. "But you haven't been able to learn the identity of Mr. X, have you?" he asked.

"No. That explosion closed one en-

# Advertiser's CONTACT

A LITTLE NEWSPAPER DEVOTED TO A BIG CAUSE ★ OF, BY AND FOR FLYING ACES CLUB!

VOLUME 8

MARCH, 1935

WHOLE NUMBER 19

## NEW STAMP DEPARTMENT WILL INTEREST ALL AIR FANS

You fellows have asked for it, and we're going to give it to you—the new stamp department! So many of you have requested this new section in FLYING ACES that the editors are mighty pleased to comply with your requests. After all, it's your magazine!

The editors insisted, however, that FLYING ACES stamp section be authoritative. Moreover, it has to be in keeping with the editorial policy of the finest aviation magazine that money can buy.

The new department will appear for the first time in an early issue of FLYING ACES. And the articles will give you a lot of interesting, informative dope on air mail stamps. What could be more appropriate for FLYING ACES? And get a load of this. This stamp department will be written by no less an authority than the well-known Charles Corwin, A.P.S. We'll have to get after him and make him add the initials F.A.C. after his name. Incidentally, the A.P.S. are the initials for the American Philatelic Society.

This new department will be of especial interest to aviation enthusiasts, as well as to all stamp collectors, since Mr. Corwin will take up in detail the various types of stamps connected with flying. You'll realize that his articles will land right on your tarmac when we give you some of his subjects. He'll tell you about errors and oddities in air mail stamps. He'll discuss with you the evolution of aviation on stamps, and he'll give you the low-down on maps on stamps, famous flyers and famous types of ships on stamps and those are only a few of the interesting subjects that you'll find in the FLYING ACES stamp department.

That's the story . . . but there's another part to it. You fellows who have been writing to stamp companies to get them to advertise in FLYING ACES will find it twice as easy. It's at least a two-to-one shot that you'll get them now if you just tell them about FLYING ACES, the new stamp department and what a great bunch of stamp-collecting fans are to be found among our readers.

Get out your typewriters and fountain pens. Lay down a barrage of letters to convince a flock of those stamp advertisers that they ought to advertise in FLYING ACES. And as you know more advertisers will bring in more money with which to make FLYING ACES an even finer magazine. And a finer magazine will attract more readers, thus promoting greater interest in the F.A.C. and aviation.

## F. A. C. Rifle Contest To Be Announced

Here's a load of good news for rifle enthusiasts. G.H.Q. has been the scene of countless conferences to discuss ways and means of staging the first big F.A.C. Rifle Contest. In fact, one member of the Staff went down to Washington to talk it over with the officials of the National Rifle Association. It was felt that their years of experience in conducting rifle contests would be tremendously helpful. And it has worked out just that way.

Plans are rapidly taking shape. G.H.Q. is confident that it will be possible to make a definite announcement in which all the details of the contest will be given in the April issue of FLYING ACES. If, however, any unforeseen contingency should arise to delay this announcement, look for it in the May issue.

It's easy enough to stage a Rifle Contest. Headquarters insists, however, that the rules make it absolutely fair for everyone, so that the novice will have an equal opportunity with those of you who are old-timers on the rifle range.

In the meantime, if you fellows who are too impatient to wait for the big event will write to the National Adjutant, we will try to publish a list of your names and addresses in FLYING ACES so that you may get in touch with each other and get going that much sooner.

## Beware of Bootleg Flying "Schools"

Ace McCoy, the artist, author and pilot who is responsible for Flying Aces Pictorial Flying Course, reports that a number of pilots who own unlicensed ships have been giving flying instructions. They take the students' money and teach him to fly. Oh, yes! But if the student is lucky enough to come through without a serious crack-up the Department of Commerce will refuse him a license as the ship in which he learned to fly was unlicensed.

Beware of planes without any licenses, or planes whose license numbers are preceded by the letters "X" or "R." Make sure that any plane you go up in has an "N.C." license. And stick to the recognized flying schools. Otherwise, you may have nothing to show for your money . . . even if you do live to regret an unwise selection.

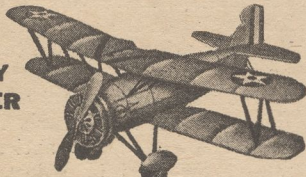


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trance, for one thing, and my own weak-  
ness from loss of blood made me change  
my plans somewhat. I knew I wouldn't  
be able to stand up in a hand-to-  
hand struggle with the enemy. So I  
removed such debris and small stones  
as I could from the bottom of the  
cistern and used them to construct a  
barricade a few yards from this room.  
It did fool Mr. X, for I heard him pok-  
ing around on the other side of it. Fi-  
nally he went away, probably thinking  
that the explosion had completely ruined  
his pretty little spy nest. He felt sure  
that the evidence of his guilt would  
never be revealed."

A low whistle escaped Koslov. "I'll  
be damned!" he growled. "I see what  
caused that explosion now." Rapidly  
he explained to Fraser. "This is what  
must have happened. Mr. X, after stab-  
bing you, thought you were dead and  
knew he might be in danger if your  
corpse was discovered, so he plotted to  
get rid of it. A makeshift bomb, set off  
behind your cubicle, would do the trick,  
but he failed to get the proportions  
right. The bomb packed too much kick  
and did double duty. It also sealed up  
the main entrance to this rat's nest  
where we are now sitting. And he's  
probably congratulating himself up  
there on the drome, right this minute!"

Fraser glanced at his watch for a  
second time and held up his hand for  
silence. "Sorry to cut you short, buz-  
zard," he said abruptly, "but the Hell-  
Cats are in grave danger. One hour and  
forty minutes from now, to be exact,  
a rain of far-flung H.E. shells will drop  
on this drome. I'll tell you how I know.  
The first day I spent holed up here, I  
thought of a long chance and gambled  
on it. After studying Mr. X's code  
books for a while, I tapped out a mes-  
sage on the telegraph instrument, re-  
questing that all instructions sent over  
my wire from Germany in the last  
twenty-four hours be repeated. I told  
the operator on the other end that my  
receiving set had been giving me trou-  
ble, and I might have missed something  
important."

Fraser picked up a sheet of note-  
paper from the table and handed it to  
Koslov. "Read the two bottom nota-  
tions," he commanded. Koslov read rap-  
idly.

"Z-39. Barrage you requested will ar-  
rive Wednesday eight-twenty p.m. Seek  
safety. Z-1."

The second notation brought a growl  
from Koslov's throat.

"Z-39. Plane to transport you back to  
headquarters of High Command will land  
in enemy territory Marne-Paris road, one  
kilo north of your present location some  
time before Wednesday midnight. This time  
positive. Z-1."

Koslov handed the paper back.  
"Sounds as though Mr. X is planning  
to fly the coop," he commented, and his  
hands rolled themselves into powerful  
fists. "What do you want me to do,  
buzzard?"

Fraser's lean face grew hard. "High-  
tail it back to the drome as fast as  
you can and tell Colonel Hilton all that

I've told you. Suggest to him that he  
remove every ship and man from the  
drome at once. He can give the excuse  
that he just received an order from  
Wing H. Q. to abandon the drome."

Koslov started full speed for the tun-  
nel, but Fraser stopped him. "Wait!"  
he ordered. "You're not going with the  
Hell-Cats, buzzard. I'll be needing that  
strong right arm of yours to help me  
bag Mr. X—or Z-39. You know the  
rendezvous, one kilo north of the Hell-  
Cat drome, on the Marne-Paris road,  
before midnight. Will you be there?"

An unholy grin split the big Hell-  
Cat's leathery face. "Will I be there,"  
he chuckled. "Hell, the whole German  
army couldn't keep me away!"

## CHAPTER IV

### DEATH'S RENDEZVOUS

HE scrambled into the tunnel and  
was gone without another word.  
Running like a man possessed, he cir-  
cled the Hell-Cats' nest, cut over be-  
hind the hangars and barged into Wing  
without even bothering to knock. Pant-  
ing for breath, he poured out his whole  
story into Iron Mike's receptive ears.  
Even before he had finished speaking,  
the Old Man's thumb had pressed the  
button that set off the warning siren.  
Its brassy summons roared out over  
the drome, calling to all within hear-  
ing distance of its voice. Pilots and  
enlisted men gathered in front of Wing  
with amazing speed.

Standing in the doorway, Iron Mike  
barked his orders. "Men, we are mov-  
ing out in twenty-five minutes—lock  
stock, and baggage. Hop to it."

There was no grumbling or complain-  
ing at the order. "Best news I ever  
heard," one pilot shouted to another.  
"That damned ghost music was begin-  
ning to wear on me. If I never hear a  
violin again, it'll be okay with me."

Fifteen minutes later, the first loaded  
truck rolled away, and was followed by  
a second and third. The convoy leader  
had received strange orders. He was to  
roll as far as the village of Myfee and  
wait there for further instructions.

The Hell-Cats worked with feverish  
energy. Koslov lent a hand wherever  
he was needed, and then quietly slipped  
away in the surrounding darkness. For  
a moment he paused, to get his bear-  
ings from the stars. Then, without an-  
other backward glance, he headed due  
north. Tramping across country with-  
out so much as a light to aid him, he  
made slow time. More than once he  
tripped and fell, and often the low-  
hanging branches of fire-blackened  
trees gashed his cheeks, but the big  
Hell-Cat plodded on. Nothing could  
stop him from keeping his rendezvous  
with Fiddlin' Fraser—and Z-39!

Engines bellowed in the sky behind  
him, and Koslov grinned. The Hell-  
Cats had hopped off on their crazy flight  
to nowhere. He was ready to wager  
that Pat Ryan would be angry when he  
heard the story, for the Irishman loved  
a good fight. His idea of Heaven was  
to be in there swinging his fists along-  
side Koslov.



As the big Hell-Cat continued his march, the finger of doubt touched him again. Suppose Fiddlin' Fraser was really a German agent, and had cleverly avoided capture by talking fast. The credentials he had produced could have been forgeries. But there was the ugly knife wound that had marked Fraser's chest. That was real enough.

A momentary lull in the steady thunder of distant gunfire brought a new sound to his ears. It came out of the east like the warning note of a coming hurricane. Koslov instinctively sought shelter. An H.E. shell, France-bound out of Germany, was hurtling down from the highest reaches. It passed over his head, whining like a fiend up from the pit, and detonated somewhere in the vicinity of the deserted Hell-Cats' nest.

Koslov swore, and broke into a stumbling run. The barrage that Mr. X had ordered was being delivered. The very sky seemed to groan as heavy steel missiles ripped through the ether. The ground beneath his feet trembled and quaked. Koslov was like a soul lost in the wilderness, running blindly in a terrible mist.

But slowly his reason returned. He slowed down, and finally stopped. "Shoot to your heart's content," he jeered in the direction of Germany. "The birds have flown."

A short while later, Koslov stepped out onto the little-used Marne-Paris road. Nothing stirred there. He took cover in a ditch that ran parallel with the road and got flat on his back to watch the sky. The message to Z-39 had stated that there would be a plane. "This time positive." The Hell-Cat grinned. He was just as positive that if Z-39 ever reached that plane, it would be over Anton Koslov's dead body. He had a large score to settle with Mr. X. There were Lambert and the two enlisted men who had been killed in the explosion. Silent Peters' death could be traced to the German agent, also, and Koslov felt the loss of his old friend keenly.

The Hell-Cat lost track of time. Back to the south, the fierce bombardment that was leveling the Hell-Cats' nest continued. In the east, the heavens flamed eternally red, while to the north of the ditch in which he was hidden lay a land of wilderness and desolation, devastated by the war's steel locusts. Koslov turned to counting stars. He admired a particularly bright one, then saw it blink and go out. A split second afterward, it reappeared. He knew the answer to that. A plane was cruising up there.

Cursing the steady rumble that drowned out its engine noise, Koslov sat up slowly. The deserted stretch of road shone like a ribbon of silver in the cold moonlight. Another glance skyward showed the plane slanting down fast, aiming for the road. Koslov got ready. He felt for his pistol, then suddenly remembered that he had left it back in his cubicle. He must carry on with his fists—and they were poor weapons against armed, desperate men.

**S**LOWLY he raised his eyes to a level with the road. Where was Fiddlin' Fraser? The Hell-Cat had an anxious moment. If something unforeseen had kept the D.C.I. man, Z-39 might escape. It would not be easy for him to make the capture single-handed and without a gun.

The familiar eerie whine that the wind makes as it rushes past flat wires and struts made him flatten out against the side of the ditch. The plane was hovering over the road. Its wheels touched, and it plunged on by, passing within inches of where he crouched. Some fifty yards ahead, it rolled to a stop.

Desperation made Koslov bold, and he stood up to look at the ship. It was a Spad—probably one forced down and captured in Germany. He could see the pilot sitting there in the cockpit.

Then it happened. A tall figure, wearing helmet and goggles, broke out of the underbrush near by and raced for the plane. Koslov's heart sank. The man was not Fraser. Another few yards, and he would be safe, and away in the plane.

The big Hell-Cat sprang up onto the road and gave chase. "Hey, you!" he shouted, and doubled his efforts. The fleeing man, who was now within arm's length of the waiting plane, halted in his tracks. A gleam of metal flashed in his hand. He was taking deliberate aim, and there would be no missing at such point-blank range.

Koslov lowered his head and prepared to die. His churning legs still carried him forward, straight toward that deadly muzzle.

"Drop that gun, Z-39!" came a deep, resonant command. Koslov dared to lift his eyes. Was he looking at a ghost again? For the pilot in the cockpit, who had raised his goggles and was

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looking down at the startled men, was Fiddlin' Fraser!

The ghostly pallor was accentuated by a small beam of light that sprang from some unknown source within the cockpit. "Z-39," he said again, "you murdered me."

A whimpering cry escaped the cringing man. "No, no," he moaned. "This is war. I was under orders."

"It was murder," the ghostly voice insisted. "You killed in cold blood. It was upon your orders that a barrage was sent to annihilate sleeping men."

A motion of Fraser's brought Koslov into action. The big Hell-Cat glided forward, and his powerful hands closed on Z-39's shoulders. The unexpected touch drove the enemy agent stark mad.

"Yes, I killed you," he snarled. "I killed them all." A wild laugh came

from between his bared teeth as he suddenly threw himself sideways and snatched his pistol from the ground. Before either Koslov or Fraser could move to prevent him, Z-39 had pressed the muzzle of the weapon against his own temple and squeezed the trigger.

Koslov stood looking down at the twitching body on the ground.

"Turn him over, and let's have a look at him," the quiet voice of Fraser commanded.

The big Hell-Cat bent over, pushed the goggles back from the dead face—and jumped back. Z-39 was Keefer, the ground officer!

"He was lucky to escape the firing squad," said Fraser grimly, and turned to the controls of the plane. "So long, buzzard," he said to Koslov. "I must return this bus to the drome where I borrowed it."

"Wait!" Koslov yelled up at him.

"Here's something I've been minding for you for some time now." Gently he reached inside his jacket pocket and returned Speedy, the tortoise, to its rightful master.

"Thanks. I'll do as much for you some day." Fraser grinned.

"You can do it right now," Koslov growled. "You can tell me one thing. Why did you play that damned fiddle of yours night after night?"

Fiddlin' Fraser laughed. "Well, I'll tell you," he said. "There's an old saying that curiosity killed a cat. So, needing a Hell-Cat mighty bad about that time, I kept playing my violin, and curiosity brought you out to investigate—just as I knew it would."

Their hands met in a friendly clasp. "I see now," chuckled Koslov, "but it only goes to prove that the old sayings aren't always right. Curiosity didn't kill this cat!"

## Horse Flyers

(Continued from page 13)

A heavy object slammed against the panels of Phineas' door.

MORNING brought Grieves to the same door. He knocked, thrust in some clothes, then ducked fast. The Boonetown miracle man looked over the uniform and dared not believe that he would ever put it on. But Phineas was game. He appeared for breakfast in the conventional red, swallow-tailed hunting jacket, ascot tie, and waistcoat. White pants were tucked into boots of shiny black, and a hunting cap, much too small, perched atop his rusty thatch of hair.

"Bomb joor!" he greeted the gathering in the big hall. "Where will I meet my horse?" Outside, hounds began to bay, and drowned out the few voices that deigned a reply. "Looks like Eliza will get an awful chase across the ice, huh?" Phineas kept on. "Well, I will have my coffee, garsongs!"

Once outside, the Yank was even more intrigued. At least one hundred and fifty hounds were milling about. There were thirty riders ready to follow them out.

"I don't see what chance you will have against one fox," he yipped at the brigadier. "Haw-w-w-w! Yoicks!"

"The fox we have is very fast, old chap," the Brass Hat replied, trying to make the best of it. It would not last forever. He had personally picked out the Pinkham mount.

"You got the fox already?" shot Phineas. "Then why chase him? It seems silly to me. Haw-w-w!"

"It is sporting," growled his host. "We let him out and give him a chance—"

"Well, I'd still rather go fishin'," argued Phineas. "But I've always tried everything once, even tripe. When do we take off, huh?"

A groom brought him a horse. It eyed Phineas as if he had once put

ground glass in its oats. When he reached out to pat it on the nose, it took a bite out of one of the Pinkham ears.

"Would you have a Spad handy?" inquired Phineas. "It is safer an'—well, I am a Pinkham an' nothin' can stop me. Give me a hand up to the pit, huh?"

Phineas got aboard just as a horn blared out. The horse did a sideslip and bumped into the one carrying Lord Busby-Troutbrooke. The M.P. nose-dived into a hedge. Before Phineas knew what was happening, the horse under him had got into the spirit of the thing. Phineas had never imagined in his wildest nightmares that a horse could be so uncomfortable. The legs of the animal seemed to have stretched; otherwise, why should it seem so far to the ground? Even during a battle with the Vons upstairs, Phineas had never taken more punishment in the empennage. He began to look around for a place to land, just as somebody yelled, "Yoicks!"

"Y-y-yoicks!" quavered the Yankee horseman. "Cr-r-ripes! It'd be more fun to be the fox."

Coat-tails streaming out behind, elbows working like pistons, Lieutenant Phineas Pinkham followed the pack. He knew his backbone was already halfway up into his head, and wondered how long it would be before it came out through the top and knocked his hat off.

"An' some bums join the cavalry," he groaned. "To hell with tantivies an' yoicks! 'Whoa' will suit me."

Phineas said "Whoa" twelve times, but the horse didn't seem to get it. And then he came to a fence. The horse skidded on all four hoofs and stopped dead. Phineas kept on going, however, soaring over a brook like a bird. He then nose-dived into a bunch of blackberry vines. Scratched up like an old

school desk, he crawled into the clear. When his buttons stopped rattling, he heard a sputtering sound and, looking to the left, saw Lord Busby-Troutbrooke backing out of a brook on his hands and knees. It was apparent that the peer had waved his hands on his way through the air, and had wing-slapped himself out of some distance.

"Yoicks!" Phineas greeted him, and helped the old man to his feet. "Who wants a fox, anyways, huh? They must have awful brakes on them plugs, huh, lord?"

"A bally lot of rot, what?" replied the M.P., wiping mud from his well-bred face. "Fawncy chasin' a bloomin' fox. Bah!"

"There's only one way to foller hounds," said Phineas, as they limped up a hill. "That's in a Spad. How would you like to go for a ride in the Bristol the lieutenant flew over, huh?"

"But it's against military regulations, sir," Lord Busby-Troutbrooke said, drawing himself up indignantly.

"I'm a guest here," retorted Phineas. "I must be given hospitality. I know my rights. I'll have everythin' at my disposal, even a Bristol. It's some fun, flyin', lord."

"By jove!" the M.P. ejaculated. "Rip-pip! Pip-pip! Let's be off, leutenant. Always wanted to soar in one of the bloomin' sky busses, eh, what?"

"Tallyho," responded Phineas. "To horse, Brooktrout!"

Grieves, the butler, came out and, beggin' the Pinkham pardon, asked Phineas if he would mind foregoing a jaunt in the Bristol. The jolly old Royal Flyin' Corps captain would be no end fussed.

"Go about your buttlin'," replied Phineas. "I'm an officer and will brook no insolence. Just a minute! You go up an' spin that prop when I give you the word, my man."

Grieves did as he was ordered, and



almost lost his head. He was still sprawled out, cussing Phineas, when the Bristol soared over the gorges, the glens, the glades and bosky dells of the English countryside. Phineas spotted the hunt and pointed down.

"Oh, boys! That fox is tryin' to make the dogs dizzy, runnin' in a circle," he yelled. Then he saw the fox make for a big tree, with the hounds not far from its tail. The fox ran up to within a yard of the tree, then banked and did an Immelmann onto the ground.

"Now, that's funny, lord," Phineas shouted back. "It was as good a tree as any, huh?"

There was no answer. Lord Busby-Troutbrook was no longer interested in foxes, but in the perverseness of gas-tronic gear. The M.P. was leaning over the side of the Bristol pit, trying to brush colored spots away from his eyes. Somebody had told him once that everything that went up had to come down. It occurred to him that the axiom would also work in reverse.

"Some fun, hey, Brooktrout?" yelled Phineas. Then he realized that there were two other ships in the sky. Bristols! He waved to them, but they came roaring up until they were close enough for a punch. And punch they did. Vickers lead tore at the pit close to the M.P. A hail of it ripped across Phineas' lap and singed his hunting pants.

"Hey—yoicks!" howled the Yank. "Call off them bloodhounds, as I quit! Boys, you would think I was stealin' the crate. Huh, once more an' I'll smack them back, the bums!"

Again the Bristols piqued in, ripped out burst after burst. Phineas swore and climbed, pushing the Rolls Royce power plant to the limit. He rolled over at the top of the loop, then banged away at the nearest Bristol.

"A tantivy for ya! So ya want to play, huh?" Suddenly it occurred to Phineas that there was a serious misunderstanding somewhere. He had a lord in the back seat, and the King would most likely be very disagreeable if Phineas lost his passenger. Phineas signaled for a landing back at the big flat meadow behind the manor, and the Bristols pulled their punches and crowded him in. He landed with his right tire flat. The Bristol spun around, then slid toward a big hayrick like a ball player making for third. The two-seater came to rest with its tail up.

**L**ORD BUSBY-TROUTBROOKE had parted company with Phineas Pinkham at the edge of the meadow. Grievances came running to pick him up as the Yank gave his attention to the Bristol's landing.

"Yoicks!" the M.P. shouted, his eyes working at cross purposes. "A tantivy! I'll make the next jump—"

Two Bristol pilots strode up to Phineas and wanted to fight.

"If that is all, put up your dukes," yapped the cause of it all. "Shoot me down, huh? I'll call the King. I'll write to the Queen about—"

"We thought you were the escaped prisoners, you blinkin' jackass!"

stormed one of the pilots. "Two German flyers got out of Excheater early this morning. Von Schnoutz and von Bissinger—"

"Ah—er—what?" Phineas gulped. "If you'll excuse me, I'll go somewhere to swoon. Von Beestinger an' von Schn— an' after all the trouble I had knockin' them down! I—er—well, I better be gittin' back to France, as it looks like the Old Man at Barley Duck was psychic. He must've been wishin' like hell since I left."

"You'll answer to charges, by gad!" thundered a voice. Brigadier Stokes-Furness rode up, jumped from the saddle. "Foolin' with the King's air equipment, what? Oh, it's a chance to get rid of you, you fresh, mutton-headed blatherskite!"

"I'll look that word up," snorted Phineas, "an' if it's what I think it is, I'll—haw-w-w-w! You're not in uniform, so I can speak to ya as if you was a human being. Stoke Furnace, I snap my fingers at ya. Look!" Click-click! "You remind me of somethin' that was put in a dark cellar ten years ago an' was forgot. Yoicks to ya, haw-w-w-w! I'll tell the U.S. Consul the treatment I was accorded here."

"Technically, you're under arrest," the captain of the British squadron yelled. "You'll be confined to your room until I consult with my squadron commander, Lieutenant Pinkham."

The brigadier nodded his approval and spoke to the other flyers. "You'll have dinner with me tonight, gentlemen? Notify your mess, what?"

"He couldn't be worse than you," grinned Phineas, walking jauntily up the hill to the big manor house.

The Bristols roared, prepared to leave.

"I rather think those Krauts will be close to the Channel by this time," one flyer said to the brigadier before the take-off. "They're wearing British uniforms."

"Huh," yelled Phineas, "if you had to knock 'em down like I did, you wouldn't be so careless an' let 'em out. You should've locked 'em up in Scotland Yard, as it is so tight nobody could get out. Haw-w-w-w!"

"Yaw-w-wha-a-w-w-w!" mocked the brigadier. "Pinkham, you are as funny to me now as a winding sheet. I must've been balmy. Well, I will show you."

"I was a little nutty, too, to drag you out of the canal." Phineas grinned. "That makes us even. Did ya ever hear the story about the rotten egg?"

"Well, spill it," the Brass Hat said. "Make me laugh, I dare you. What's the story?"

"It's too bad," guffawed the unquenchable humorist. "Haw-w-w-w! Git it? Er—well, just forget I even mentioned it."

"Fawncy," Lord Busby-Troutbrooke exclaimed. "By the way, general, you told me about the horses an' the radishes that had to be jolly well installed in the same barn. I just got it, haw-w-w-w! It couldn't be done, general, as the bally beasts would eat the radishes!"

"I wish I was with the Old Man," groaned Phineas. "He would look like

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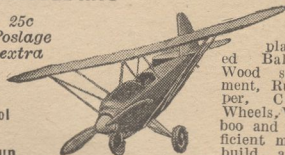
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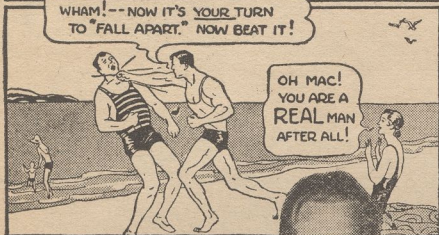
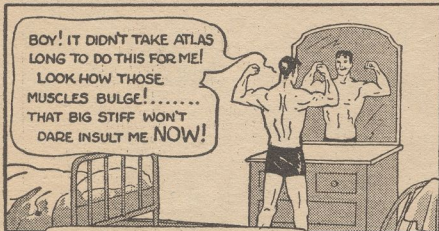
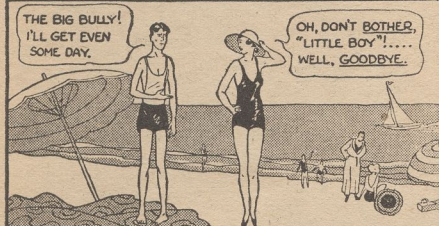
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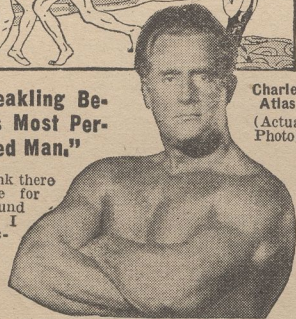


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a cherub to me at the moment."

Once ushered into his room by a savagely exultant Grieves, our hero sat down to think things over. Von Bissing and von Schnoutz, if they ever got back to Germany, would make things very unpleasant for him. Their chances of getting out of England were slim, unless—

"Yoicks!" Phineas suddenly exclaimed. He got up and went to the window. He had suddenly thought of the fox that had been chased across the Limey countryside earlier in the day. A sly grin bisected the homely map of the Yankee flyer. It was quite apparent to him that the brigadier was quite a so-and-so around these parts. Phineas had learned that flyers very often came to dinner at Hardsleigh-on-Tyme, and arrived in their machines. It was also plain to Phineas that he could be busted quite handsomely by said brigadier, so something had to be done.

"Haw-w-w-w!" he chuckled, rummaging into his war bag. He withdrew a very big coil of something that looked like telephone wire. "It is preparing that counts. I'll bide my time. I can be a sport, too—like havin' somethin' an' then lettin' it loose so's I can catch it again. Haw-w-w-w!"

Grieves came in at dusk. "The officers are very lenient, sir," he intoned. "You are to join them at dinner, sir. I jolly well 'opes yer choke hon it—sir," he added bitterly.

"Go to hell, Grieves," Phineas replied cheerfully. "Tell 'em I'll be down when I peel off the monkey suit."

As Grieves went out, Bristol power planes began to make themselves heard. With a roar, a pair of Bristols zoomed over the manor house, swooped low and came to rest in the big meadow. Four flyers got out and ambled up to the house. Phineas saw that the brigadier had three farmhands placed near the Bristols. Each of them was armed with a rifle.

"In an hour it'll be twilight. Then it'll be dark," chortled the Yank. "It's like the Limeys to have twilights. Haw-w-w! When I think of that fox with the hounds nippin' its empenage, an' that tree an'—well—is it my fault I was born readin' minds?"

He went to the window and dropped the wire to the ground. He then donned his officer's uniform. Having again rummaged in his war bag, he drew out a long, thin tube and an oilskin article that looked like an oversize tobacco pouch. This he fastened to the belt of his trousers so that it hung down under the skirt of his tunic.

"Boys, the Limeys don't know what a real hunt is like," he mumbled. "I'll show 'em a yoick or two. An' they think they'll bust me, huh? Well, well!" He walked down the stairs toward the banquet hall, where the officers and guests were already making merry.

"Coals in the furnace," he says, the brigadier was chortling. "Yaw-whaw-w-w! Then the bloomin' idiot tells me a story of two Scotchmen, Pat and Mike. It seems they met a farmer's daughter—yaw-w-wha-w-w!"

"An' they murdered Kitchener,"

sighed the Yank, shaking his head. "Well, let 'em wax merry as—hello, bums—er—chappies!" he said aloud, striding to the festive board. He took a toe hold under it. "Did ya git the fox?"

Faces soured. The brigadier cleared his throat noisily and called for port.

"Huh, that is my weakness," Phineas immediately announced. "I am the champion port-slinger. There's nobody who can hold as much port as me an'—"

"Bah!" a Bristol pilot tossed out. "I'll jolly well take you up on that, Pinkham. Want to bet?"

"They bite!" Phineas exulted inwardly. "Oh, boys! I'll bet ten pounds," he said aloud. "If that ain't enough, make it a ton. Haw!"

Port was consumed. Everybody at the table joined in the bout. Glass after glass was tipped to Phineas' lips as he drank glass for glass with the other Bristol pushers. Eyes began to glass; words came out as thick as Yorkshire pudding.

"Sh-terrible," a Rolls Royce throttler muttered. "German aishes eshcape. Hunerd an' shirty planesh they shot down when they wash looshe in Franshe. Terrible blow to Alliesh, ol' thingsh, what?"

"Righto," affirmed another imbibor. "Meansh turn of tide in skiesh on Western front. King be no end angry, what? Somebody'sh goin' be bushted. Hunerd an' shirty planesh—oh, shameful."

"It's me that thinks it's terrible," Phineas Pinkham cracked. "Didn't I shoot 'em down? An' the Limeys let 'em go. Grieves—more port. I ain't wet my tonsils yet, haw-w-w!"

The brigadier's eyes bulged. Lorgnettes were lifted and eyes, utterly incredulous, surveyed the human wine cask. The eyes of Phineas were clear as crystal, yet his dazed audience had actually watched him drain glass after glass of wine.

"Bust me, huh?" mumbled the Yank, accepting more port. He shifted a little in his chair, as there was a weight at his hip that unbalanced him a bit. "Huh, if the Vons git loose, it'll be worse than if the Kaiser had found another army under a wiener factory some place. Them two Vons are poison. Well, it'll be England who's to blame, and I bet they'll even bust some M.P.'s, too, haw-w-w-w! How about it, Brooktrout? More port, Grieves!" He looked out of the window. The sky was darkening. Two Bristol pilots began to snore, their noses wiping up gravy in their plates.

"Heresh ten pounds," the Bristol captain forced out. "Hell with you, an' all that short of shing. Blinkin' bloom-in' tank, what?"

"Haw-w-w-w!" guffawed the winner. "Sissies! Well, now that my thirst is a bit quenched, I'll take a stroll. Word of honor, huh? I won't run out, as where would I go, brigadier, huh?"

"Fawncy," Lady Stokes-Furness marveled. "Grieves, how is the supply of port?"

"Exhausted, your Ladyship," replied the butler, spreading his palms dismally. "If I may say so, he is a blinkin' 'og!"



PHINEAS strolled casually out of the banquet hall. There was a big bulge at his hip, but no one noticed it. Snores increased at the festive board. The R.F.C. pilots were washed out. Outside, Phineas increased his pace.

"Bust me, huh?" He grinned. "Oh, boys, if them Bristols was needed in a hurry. Yoicks!" He scooted around the side of the house and picked up the wire he had dropped from his window some time before. Then he scampered toward the thicket lining one edge of the meadow where he crouched low, in its shelter. Not more than a hundred feet away, the tails of the Bristols were turned toward him.

Phineas listened intently for night sounds for a while, then began to look for something. He finally found it—a sizeable log of wood in the first stages of senility. To each end of it he attached the long wire. Then he removed the oil-skin sack from his belt, removed a tube and dropped something into the pouch.

Several minutes later, the three men guarding the Bristols brought up their rifles.

"Alf a mo', ya bloke," said one. "Stop in yer blinkin' tracks before we—"

Phineas advanced slowly, his hands behind him.

"Strike me bloomin' pink, 'Arold," exclaimed the farmhand, "it's the bloomin' Yankee flyer—yuss!"

"Don't shoot," Phineas grinned. "I've brought ya some port, as the night's chilly. If ya don't mind drinkin' it out of what it's in."

"Gorblimey, it's a gent yer be—sor," breathed another guard. "Let's 'ave it, lieutenant."

Phineas handed it over. The three sat down and put their rifles across their knees. The oilskin sack was quickly emptied, having passed from one to the other with rapid sequence.

"A nice night, huh?" said the Yank, sitting close to the sentries. As he spoke, he looked over into the woods. A premonition of startling events to come sent pleasant thrills along the Pinkham spine.

"A bloomin' shyne—makin' us sit 'ere, lieutenant. Who'd steal a blinkin' Bristol hin England, what?" complained one little man. "I arksks yer, lieutenant—uh—er—ah-h-h-h-hum!" He yawned capaciously.

Five minutes later, the three farmhands were slumbering peacefully. As they slept, Phineas crawled under the Bristol nearest the woods, and attached something to the undercarriage of the two-seater.

"Haw-w-w!" he chuckled. "In the dark, that black wire is hard to spot. Now if only—"

His task finally completed, Phineas crawled out from under the plane and crossed the greensward toward the other two-seater. Under it, he lay prone and waited. An hour must have passed, he thought, before his hunch materialized. Two stealthy forms emerged from the woods a hundred yards away. At first they advanced slowly, then broke into a run. They stopped to examine the sleepers closely.

"Ach," spoke a hoarse voice, "drunk yedt. Qvick, Hauptmann, now iss it der chance."

One picked up a rifle and climbed into the control pit of the Bristol. He switched on. The other night prowler swung the prop. The Bristol Rolls Royce sucked at the spark avidly, caught. A roar split the murk. A gun was tossed out of the Bristol. The Rolls Royce began to advance. It was tearing along the ground when several of the Britishers tumbled out of the big house, waving their arms and yelling murder. Phineas met them halfway.

"Y-you, Pinkham?" the brigadier blurted out. "You—by gad—stop the bloomin' Huns! It's—"

"Get the pilots!" Phineas shouted. "To horse—as we must take up the chase. Where are the flyers, huh? Oh, boys, the King'll be sore. They're drunk in times of stress. You got them boiled, general. Wait until I tell the King. Bust me, huh? Haw-w-w-w-w!"

Brigadier General Stokes-Furness held his head in his hands and waltzed around the greensward in distress. "By gad, what a bally mess! Pinkham—do something. The Huns are escaping—what? Stop!" he yelled. "In the name of the King!"

"That'll scare 'em," observed Phineas. "Huh, well—"

The moving Bristol seemed to falter in its stride as a crashing sound came from the thicket. Something bounced over the turf, taking big divots as it went. The thing almost washed out the brigadier.

"A log—fawncy!" yipped the general. "Pinkham, what—by gad, you got those sentries to sleep. Why, you—"

"We are goin' 'untin'," howled Phineas. "I am the only flyer who is not cockeyed. You will get in the rear pit. I'll show ya a hunt," he yelled. "Yoicks! Sportin', what—when you already got a fox an' then let it go so's ya kin chase it. Spin that prop, Stoke Furnace, as we are off over the bosky dell in a tativity. Haw-w-w-w!"

Desperation driving him, the brigadier turned the prop over. When Phineas had the Rolls warmed up, he jammed in the throttle. Stokes-Furness made a grab for the stirrup as it shot

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away. As Phineas cleared the runway, the brigadier was struggling to get right end up in the observer's pit.

The Vons barely got the two-seater over the top boughs of a group of trees at the eastern boundary of the estate. The log they were towing was quite a handicap. Phineas had figured that it ought to slow a Bristol down by approximately twenty miles per hour.

"Wait until the Heinies meet me here—of all places," he yipped. "Now this is a real hunt, and is really the yoicks! Haw-w-w-w-w!"

"**D**ER ship it flies like *der* mud turtle vunce," yelled von Bissinger into his companion's ear. "*Ach, Gott, iss idt you half forgodt idt der flyink?*"

"Besser iss idt you shouldt shudt oop!" von Schnoutz hurled into the backwash. "*Der* throttle it giffs vide open as your bick mouth! *Ach, Himmel!*"

"Tallyho-o-o-o-o!" howled Phineas Pinkham. "There's the quarry, Stoke Furnace. Drive them hounds at the bums, haw-w-w-w-w!"

"Jolly sport, I say!" bellowed the brigadier. "Yoicks!" He swung the guns around and let them rip. Bullets flew past Phineas' ear, whanged through the superstructure.

"Oh, you fool!" yowled the Yank. "Am I the fox? Of all the fatheads—"

*Herr* von Bissinger heard the rat-at-tat-tat and went into a zoom. At the top of the climb, he rolled over. The log took up slack, tugged at the Bristol's landing gear. Supports splintered. The Bristol shook as if it had the ague and von Schnoutz wiped icy globules of sweat from his face.

"*Donnervetter!*" he gasped. "*Was ist das?*"

Von Bissinger tried to climb again. The brigadier slammed lead through his tail assembly. The Bristol carrying

the Vons suddenly went haywire. The Rolls Royce quit, and sounds came from it that were like the panting of an exhausted fox. It went down to the heath and hit hard. On the third bounce it hopped a hedge.

"That is better than I did it with a horse," Phineas hollered. "Haw-w-w! Well, the fox is treed!"

The quarry was actually treed. It was wrapped around a mighty oak. Phineas landed his two-seater in an adjoining field and returned to help von Schnoutz and von Bissinger out of the wreck. After the cobwebs had been brushed out of their brains, the Vons stared at that grinning, buck-toothed face close to their own.

"*Ach, Gott!*" groaned von Schnoutz. "*Der* nightd-horse iss idt. *Nein*, I vill nodt belief idt. *Himmel*, if it iss by *der* Arggtig Ocean I go vunce, so I find Pingham ridink *der* valrus, also."

"Pip-pip!" chuckled Stokes-Furness. "Sport, eh, what? Yoicks!"

"Take us away," mumbled von Bissinger. "*Ach, Herr Leutnant* Pingham. Spots bevore *mein* eyes, *und* then it iss *der* Pingham face *mit* vreckles. *Gott!*"

"Let's go back an' git some more port," suggested Phineas. "Well, it's a pretty pass that the R.F.C. has to git scalded when—well, it is a good thing for the Allies that a Pinkham was on the job, sober, huh?"

"Righto!" affirmed the brigadier.

"Do I git busted, huh?" Phineas wanted to know. "Or do I tell the King the Limey pilots can't hold their grog?"

There was only one answer to that, and Stokes-Furness gave it. "Just havin' my fun, lieutenant," he said. "Jolly old sense of humor, what?"

"I wish you would stop askin' me 'what', when I don't say nothin'," complained Phineas. "Let's go, Vons! It is a nuisance, keepin' knockin' you bums

down. Yoicks! Tantivy!"

Later, in the manor house, Phineas said, "You claimed it was bloomin' sportin', old chappies, to have somethin' an' then let it go to catch it again. Tallyho, what?" He grinned expansively. "Well, when I was followin' the hounds with Lord Brooktrout in the Bristol, I saw the fox shy away from a good tree, an' I put two and two together after I found out the Vons had escaped. I figured that they was hidin' in the tree. So when it was dark, they would scout around lookin' for a Bristol. Haw! So far is it clear?"

Phineas grinned around at his listeners. "Well, I made it easy for 'em, as why not let 'em go, an' have a swell hunt catchin' 'em, huh? I tied a log to the Vons' tail so they couldn't git too much of a start on us. Haw-w-w-w-w! More port, Grieves, old garsong! What do I look like—a dwarf? That was good port I give the sentries, huh? A knock-out drop an'—"

"By-y-y-y gad!" breathed the brigadier. "Fawncy!"

"It was, if I say so myself," agreed Phineas. "Won't Garrity have a spasm when he hears the King'll decorate me before I leave for Barley Duck, huh? Did ya ever hear the story about the hole in the ground, huh? No? Well, there's nothin' in it. Haw-w-w-w-w!"

"Yaw-w-whaw-w-w-w!" chimed in Stokes-Furness. "I still like the coals in the furnace better. Yaw-w-whaw-w-w!"

"Yoicks!" Phineas grinned. "Grieves, I dropped tuppence. Will ya pick it up, old chappie?"

Grieves unbent his dignity, seized the coin, then let out a howl.

"Haw-w-w-w!" laughed Phineas. "I had it in the chaffin' dish!"

"Beg pawdon, sir," Grieves moaned to the brigadier. "But I arks yer to accept two weeks' notice, I do. That is final, sir."

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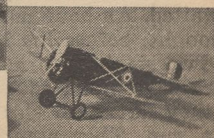
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## Eagles of Asia

(Continued from page 23)

self at a teakwood table.

"What you mean, killing two Japanese pilots?" he barked.

"They tried to kill me."

"More better if they did. Now I make pidgin talk. Gimme Confucius letter, you go flee."

"I can't."

A flush crossed the general's face. His sloe eyes narrowed and a clawlike hand stole to his automatic.

"Gimme letter or I give you to Japanese."

"I haven't got it."

Feng Tzu Fu's pistol snapped from its holster. Then its point lowered. His yellow teeth were bared in a smile as he glanced over Jerry Clayton's shoulder.

The American looked behind him. Entering the *yamen* gate was a white man, dressed in spotless ducks and wearing a pith sun helmet.

"Misto Blown—velly much honah you come my poo' house," the general murmured.

"I heard you had a countryman of mine up here," the man replied, "so I thought I'd drop in and meet him."

"Ah, yis." The general bowed again. "Misto Clayton, him verry fine flyah. Just come back from Great Wall. Velly good fiend o' mine."

For ways that are dark and tricks that are vain, the Chinese *tuchun* is peculiar, and Jerry Clayton was little surprised. He turned to meet the newcomer.

"I'm Charles Brown, the new American consul in Changsha," the stranger announced. "I heard from—a friend of yours that you were here, so I dropped in."

"A friend?"

"Yes." Then, in a lower voice, "Jim Cassidy. He gave me something for safe-keeping."

Jerry gripped himself. He knew Feng Tze Fu's penetrating almond eyes were studying him. The *tuchun* had been cheated by Brown's coming, but would save his face by an appearance of cordiality.

"A fiend o' Misto Blown, him fiend o' mine." The general bowed again.

"That's fine," boomed Brown. "And now, if you'll excuse Mr. Clayton, general, I'd like to take him down to the office on a matter of business."

JERRY CLAYTON followed the consul out of the *yamen*. They were halfway across the landing field before either spoke. Brown pointed to a flight of Curtiss pursuit planes.

"Just came in," the consul said. "Lord knows on whose side they'll fight."

"American pilots?" Clayton asked.

"No. Feng Tze Fu is working with the Japs. You'd better hop off. I have

the Confucius manuscript in my safe."

Jerry Clayton did not linger in Feng Tze Fu's domain. Cassidy had his Boeing serviced, and five minutes later, he was roaring down the Yangtze.

Night had descended when he made a landing and hurried into the presence of the Chinese general commanding the front-line sector.

"My friend, I am very sorry." Look Tut Ba did not speak the pidgin dialect, but a rather stilted and formal English.

"Sorry? For what?"

"To have caused you so much trouble. Beware of the Japanese, my friend. They have taken a blood oath."

"Hell, I've taken one myself! Say, general, can't you enlist me in your army?"

A sober smile crossed the commander's face. "I can't enlist you, my friend," he said, "but you can have a captain's commission in the flying corps."

Jerry Clayton leaped to his feet. His arm shot out, and he grasped Look Tut Ba's yellow hand. An hour later, the young American was an officer in the service of the Chinese Republic.

Morning came, and he went out onto the flying field in his new uniform. He was startled to see several strangers talking with the pilots and mechanics, although he knew from previous experience that Japanese spies filled the camps, posing as Koreans and Manchurians.

Under the general's orders, he was given charge of an independent unit of Boeings. His second-in-command was Ho Mock Yuen, an American-educated Chinese. To him Clayton gave orders that barred everyone from the field except pilots and mechanics of known loyalty.

"We must keep everybody out," he told Ho. "If we don't—"

He paused as an orderly handed him a note. Clayton glanced through it, his eyes widening. Then he read it a second time.

"Dear Jerry:

I am sorry about what happened yesterday. It was the result of a mistake in orders. Naturally, you cannot be blamed for fighting in self-defense and killing men who attacked you.

Please show that you forgive me by attending a little dinner I am giving tonight at the Tea House of Heavenly Fragrance on the Chinese side of the Kong Ku gate. You need not fear treachery. I give my word as a Japanese officer and a gentleman that you will not be harmed nor your liberty taken from you.

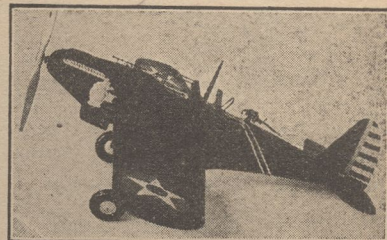
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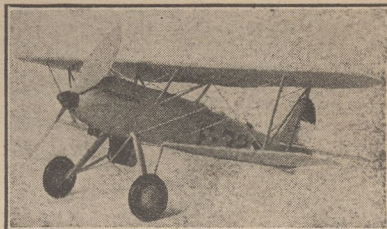
Clayton smiled. He was sure Fuji was playing a game. He would play one, too.

## Fighting Aircraft

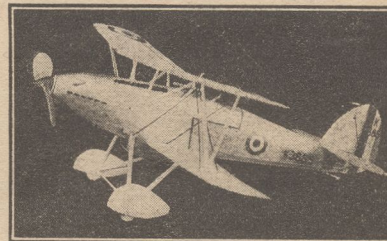
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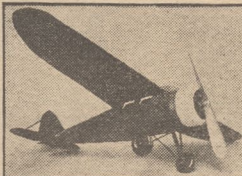
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**E**VENING found him in the Tea House of Heavenly Fragrance, where Fiju Komoto introduced him to the men and women who were his guests. Two were British aviators, detailed as observers with the Japanese Air Corps.

"And this is *Mademoiselle* Francine du Bois." Komoto presented a slender, dark-eyed girl. "I invited her especially to meet you, Jerry. She has heard me talk so often about my old friend at Yale."

"And ze wanderful zings he say of you, *monsieur*," *Mademoiselle* du Bois added in a broad French accent.

Jerry watched her closely. There was something about her eyes that proclaimed her a Eurasian. Her father might have been French, but her mother must have been Japanese or Chinese.

During the dinner party, however, he kept his eyes on Fiju Komoto. The Japanese had centered his attention upon a Russian girl, a move that seemed to infuriate Francine du Bois. Komoto paid no attention to her. His eyes were constantly on the Russian. Finally he left the table and walked out into the garden. Jerry heard a sharp feminine oath beside him.

"What's the matter?" he asked Francine.

"He go wiz her," the girl answered, "yet he tell me—find out where American keep Confucius letter. Spy—let him find out for himself!"

"Then you're not—" Jerry started to ask.

"Eurasian, yes, but Japanese—no. My mother was Chinese. These Japs, they think we do anything for money."

Jerry Clayton reached into his inner pocket and brought out his wallet. He pressed something into the girl's hand. She glanced at it, and her eyes widened.

"I could do much for you," she murmured.

"You already have," Clayton answered. "And now, if you'll excuse me, I must go."

A moment later, he was driving quickly to the air field and soon had reached his quarters. No light was burning, but he approached the door with catlike tread. He opened it suddenly and stepped into the room. The beam of an electric torch flashed in his direction. Then came the spitting flame of a pistol shot, but Jerry had leaped forward, making a flying tackle.

There was a crash as he and his adversary went to the floor. Clayton squirmed around. He could feel strong, thick fingers seeking his throat. The man was trying for a jujitsu hold. Jerry flung his hand away, then crashed with his doubled fist into his adversary's jaw. With a moan, the man sank back. Another blow, more savage than the first, landed, and the Japanese relaxed. Clayton turned on the lights and gazed at the motionless form upon the floor. The man was not Fiju Komoto, yet Jerry Clayton felt sure his former friend had sent him.

Summoning the guard, the American turned his prisoner over to the corporal. Then he hurried to the quarters of General Look Tut Ba, where he made a report of the evening's experience.

"And what's the answer?" Jerry asked, when he had finished.

"The answer is that your former college mate will now try in every manner he knows to destroy you," the veteran commander answered. "He is looking for the Confucian manuscript. He knows that you have guessed his plans, and you must be prepared for anything."

**W**HILE General Look Tut Ba had foreseen the Japanese strategy, even his canny eye did not estimate the tactics Fiju Komoto would use. Mid-day saw Jerry Clayton giving his pilots a short talk before taking to the air. The sound of a siren broke in upon his words, and he whirled to stare into the sky.

"Mitsubishis! Nakajimas! Kawasakis!" a dozen voices shouted.

The sky was black with Japanese planes. All were roaring down toward the Boeing airdrome. Jerry Clayton needed only a glance to know what would happen if those ponderous bombers unloaded their destructive freight. A yell sent his pilots scurrying to their planes. Props turned, motors roared and the Boeings slid into the air.

Hardly had their noses pointed upward than the Kawasakis opened fire. Jerry tilted his wings, the alert signal to his followers. Then his arm ordered

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a charge into the center of the Japanese.

With a roar, the Boeings climbed, shooting up at a sharp angle.

Jerry Clayton raised his right arm aloft. It came down with a snap. There was a crash as a dozen pairs of Brownings fired simultaneously.

The leading Kawasakis wavered. The streamer ship of Fiju Komoto went into a loop. At the same time, his Number Two and Three planes staggered, as though they had struck unseen obstacles. Their tails flipped up, and they lurched toward earth, burning as they fell.

Instead of turning to engage the Kawasaki formation, the Boeings continued upward. Above were the ponderous Mitsubishi bombers.

Up, up, up! Then Jerry raised his arm again. A blast filled the upper sky with dancing bullets. A gray barrage leaped up, converging on the bull-like nose of the leading Mitsubishi. The giant craft wavered as the deluge struck. Then its tail spun around. The ship immediately behind crashed into it before the pilot could pull up. In another moment, the two huge planes were tumbling, locked in a death embrace.

A dogfight raged, a mêlée in which the twelve Boeings were pitted against twice that number of Japanese ships. The bombers had already begun to drop their projectiles. Huge craters were opened in the Boeing field. Jerry looked down, and saw a signal panel appear near General Look's headquarters. "Draw enemy off," it commanded. Clayton flashed an order to his followers, and they streaked toward the west. But as the Boeings tore away, a full squadron of Kawasakis raced after them. At their head was a ship bearing the markings of a squadron commander—Major Guru Takahashi, the American-hating samurai.

"Scatter. Make them break formation," Jerry signaled his men.

The Boeings darted in a dozen different directions. Clayton turned toward the south, racing under full gun. He knew that neither the Kawasakis nor Nakajimas could overtake him. He glanced over his shoulder, to see a full flight of Kawasaki pursuing. At their head was Fiju Komoto.

Jerry shoved his throttle still farther forward. Once more he looked back. The Kawasakis were trailing. A smile thinned his lips, and he turned back to stare ahead. Then his eyes widened. Sweeping toward him was a full flight of Curtiss pursuit planes, marked with the Black Bats. They were the ships he had seen on the landing field at Changsha, and they were rushing to his aid.

CLAYTON swung around, prepared to meet Komoto's onslaught. As he lined his sights, he heard a blast of Browning fire behind him. A maze of dancing tracer enveloped his Boeing. The roar of his engine ceased suddenly, and the propeller's whirling flight slowed, then stopped. The Wasp had been struck by a full burst from a Cur-

tiss fighter. Feng Tze Fu's ships were fighting with the Japanese.

The American nosed toward an open field. He still could make a safe landing and escape. But as he descended, the Kawasakis shot for the carpet, and Fiju Komoto was on the ground before the Boeing touched trucks. Beside him stood three other pilots, their automatic pistols drawn.

"Greetings," the Japanese said, advancing as Clayton's machine came to a halt. "Once you were my host—back in America. Now I shall have a chance to return the favor."

Jerry smiled as he met Komoto's glance.

"But you were a willing guest," he said.

"I am sorry, but—" Fiju gestured to a huge Mitsubishi bomber, which was piquing for the field—"I must be your host, regardless."

With the Mitsubishi down, Clayton was marched to the bomber's side and a few minutes later, he was on his way through the air to the Japanese lines. Afternoon found him far to the north of the Great Wall.

"Now what?" Jerry demanded, as he alighted from the bomber.

"Major Takahashi requests an interview," an aid informed him.

Clayton felt a slight shudder run down his spine. He had heard countless stories of the major's cruelties. The man's appearance proved the truth of these tales. Jerry reflected, when he faced the brown, withered little figure in his orderly room.

"We will not waste honorable time," Guru Takahashi began. "Pliz tell where is celebrated Kong Fu Tze manuscript."

"I can't," Jerry answered. "I don't know."

Takahashi took up his writing brush and began to scrawl.

"As you hold commission in Chinese army, Captain Clayton, you must be treated as Chinese. Japanese ver' kindly to Americans, but you no longer American."

"What do you mean by that?"

Takahashi's almond eyes tightened. Then he handed the paper to a villainous-looking man in the uniform of the Manchukuo army.

"It mean that unless you tell where Confucius letter is," Takahashi explained, "brave Manchurian allies will give *li chi*."

"*Li chi*?" Clayton had heard of the indescribable tortures of the Thousand Deaths.

"Yes," Takahashi replied. "You Chinese now—no more American."

Jerry Clayton was led away by his Manchurian captor. If he was not ready by morning to surrender the Confucian manuscript, *li chi*, the Thousand Deaths, would be inflicted upon him.

"Give Chinese *li chi* light now," the sergeant in charge of the guard told him. "Look see." He gestured to the window of Jerry's prison.

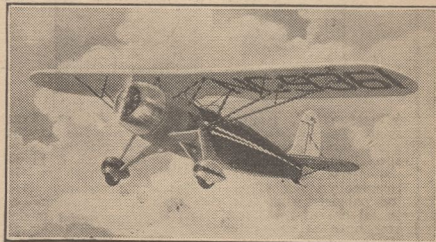
Clayton looked out. Chained to a post not far away, a Chinese was stripped to the waist. Japanese and Manchurian soldiers stood in a semicircle around the helpless man. Execu-

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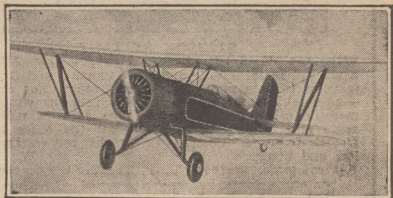
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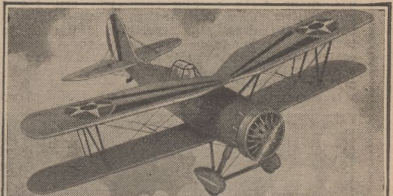
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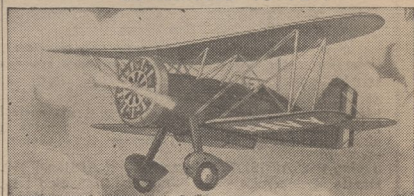
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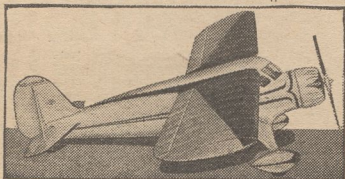
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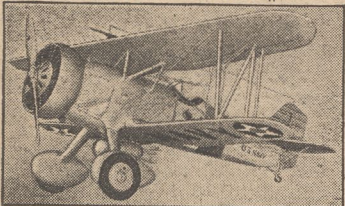
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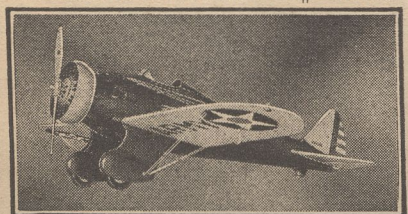
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tioners, armed with short, sharp knives, approached their victim, their sloe eyes flashing. One snatched up the hand of the Chinese, and a finger fell in the dust at his feet. An ear was lopped off, then the man's fingers, nose.

Jerry Clayton turned away, sickened. He had heard of this ghastly torment, but had believed the tales to be sheer imaginings.

"If a Chinaman can go through it without a squeak, I guess I can," he growled.

Time dragged. He kept away from the window. He had seen enough.

NIGHT came, the short night of the Manchurian summer. Darkness did not descend until after ten o'clock, but dawn would break before three. Clayton could not sleep. The first gray of morning saw him staring out of the window. The wretched remnants of the man he had seen dismembered had been taken away, removed to make room for his fingers, his ears, his . . .

He saw the Manchurian executioners crossing the open space, their knives in their hands. Then he glimpsed Major Guru Takahashi striding towards the prison. He was dressed for the air, swinging his goggles as he strode.

"Perhaps now will tell where is famous manuscript?" he asked, pausing at Clayton's window.

"Go to hell!"

A slow smile from the Japanese. "I ver' sorry for you," he said. "Manchu men take long to kill." He walked on, leaving Jerry looking at the executioners.

But as he stared, fascinated by the sight, he heard knocking at the door on the other side of the room. A key turned in the lock.

"Captain—Captain Clayton!" It was a woman's voice.

"Yes. What—"

"This is Francine du Bois. Queeck! I have unlock ze door."

"You? Why did—"

"I tell you I do much for you. Take zees pistol! I steal from Komoto. Now run, my friend. Zey are coming for you. Zat plane—zat Kawasaki, eet ees ready. Run or—"

A yell rang out as the Manchurian executioners rounded the corner to seize their prisoner. Fiju Komoto came out of the officers' quarters, charging toward the prison, a pistol in his hand.

"Stop or I shoot," he yelled.

"Shoot and be damned!" Jerry belatedly, emptying the pistol Francine had given him.

He raced to the Kawasaki and clambered into it. The wheels began to turn.

Unfamiliarity with the machine kept Jerry from getting the best speed, and Fiju Komoto had taken off and was roaring after him before he sighted the Great Wall. Clayton looked back. Komoto's was the only craft in the early morning sky.

Although he was piloting a craft with which he was not entirely familiar, he swung the Kawasaki around and lunged. The Japanese met his charge with a blaze of fire. Clayton held his own trips down until Komoto dodged.

The Japanese came back with a clatter of guns, but Jerry bored in, making no effort to change his course. He gunned the Kawasaki to the limit. He was getting the feel of the Japanese craft, and it responded to his hand.

They maneuvered at top speed, each looking for an opening. Both bent over their telescopic sights, ready to put in the killing burst.

Clayton wove and twisted. He worked to get Komoto into a position where he could riddle him. He had banished all memories of their former friendship. Fiju was a foe, hated and remorseless, a man who would have stood aside and seen him suffer the torments of *li chi*.

Clayton kicked the Kawasaki's tail around and came down with a roar. He was striking sideways, but he aimed immediately in front of his enemy's nose. A blast held as the belts raced through the blocks, and he saw the gray line of his tracers barge into the Jap's prop. It was steel instead of wood, and withstood the leaden shower. Now the bullets crashed into the cowl, but there was a sudden cessation of fire—a jam in the loading block. Jerry spun and wheeled away, fighting to clear his weapons. He looked around to see Fiju's prop slowing. The Kawasaki's engine had been put out of action. He would have to land now—land within the Chinese lines.

"I'll spare him *li chi*," Clayton muttered, "but that's all."

He cleared the jam and plunged back to where the Kawasaki was slowly settling.

The Japanese saw the flash of his cowl guns, and he stood up in his cubby.

Jerry ceased his fire. Komoto's right hand came up in a precise military salute. He took out a short sword from beneath his flying suit, and held it aloft. For a moment the blade glittered in the early morning sunshine. Then it disappeared.

Jerry Clayton did not wait to see the Kawasaki plunge to its doom. He kicked his own tail around and raced toward the landing field beside General Look Tut Ba's headquarters. He had escaped *li chi*. He had bested Fiju Komoto in battle, driving him to *hara-kiri*. The manuscript of Confucius was still in safe company—and the adventure was over.

"LIKE go back home side now?" General Look asked, when he had reported.

"No, I'm here to stay. I owe those Japanese a lot."

"Then I have good news. My friend, General Feng Tze Fu, has had the grace to commit suicide to save his face. We have taken over his Curtiss planes, and—I have a major's commission which I will give you just as soon as the ink dries."

"That won't be any too soon," Clayton laughed. "I'm going to need a lot of help when the Japs learn what happened to Fiju Komoto."

For a moment, both were silent. The American looked into the unblinking eyes of the old Chinese.

"One thing puzzles me, general," he



began. "Why did the Japanese raise so much fuss about an old parchment that was supposed to have been written by Confucius?"

"Because—" Look Tut Ba smiled softly—"the document, instead of being a manuscript by Confucius, was the key to all the Japanese army's secret codes.

We, too, have our ways of getting things from our enemies. Tokyo would have sacrificed a division of men to have recaptured that code. Now do you understand why it turned a former friend into an enemy?"

Jerry Clayton nodded. At last he understood.

## Outguessing Death

(Continued from page 15)

The gas gauge showed that the plane could stay up only twenty minutes longer. That meant that unless something extraordinary intervened, Douglass had only twenty minutes to live.

Lieutenant Fred C. Nelson, regular Air Corps instructor for the squadron, was telephoned in a town some distance away and told of the soldier's predicament. Hurrying like a fireman answering an alarm, Nelson leaped into an automobile and rushed at high speed to the airport. There was not a moment to lose, and plans for a swift rescue were already taking form in his mind.

When he arrived at the airport, no one knew just how Douglass was fastened to the rope but thought that he was sitting in a trapeze which he would be able to leave at will. The lieutenant decided that the simplest thing to do would be to attempt to pass him a parachute.

With another flyer standing on a wing tip of his plane, Nelson hopped off and approached the other ship from below and behind. Making contact was a ticklish business. Nelson's ship was twice as fast as the other and he had to stall up under it, at the same time avoiding as much as possible its propeller wash. Moreover, they were both at an altitude where the bumps are hardest, and the planes kept lunging drunkenly toward each other as they were buffeted by tricky air currents.

When Nelson finally maneuvered into a position for the parachute to be handed to Douglass, the imperiled airman shook his head and made signs that he wanted a knife with which to cut the rope. As they were then some distance from the airport and there was so little time remaining, the instructor, still not realizing that Douglass was securely tied to the rope, put his wing abreast of the sergeant's body and let him climb aboard. But Douglass refused this, also, and as the plane came to him, pulled himself up and slid over the proffered wing.

Nelson now became aware that the soldier could not release himself and realized the seriousness of the situation. He decided that the only way to save him would be to pass him a knife and let him cut himself loose and drop into a near-by lake.

The lieutenant returned to the flying field and, after sending a rescue squad to the lake to fish Douglass out when he had taken his high dive into it, he called for a volunteer to stand on the

wing with half a dozen knives and attempt to get one to the luckless flyer. Sergeant Jeddie Sharp, a keen-eyed youngster, responded. He had only been up once before, but he was eager to help his buddy. As the swaying plane maneuvered alongside Douglass, Sharp carefully placed the knife in Douglass' hand, and then closed his fingers over it to be sure that he retained it.

Douglass signaled to his pilot that he was ready to drop into the water. It was just in time. The engine was beginning to sputter for lack of gas as the pilot glided down over the lake into the wind as slowly as possible. There were trees and fences and other obstacles bordering the water, and there was grave danger of killing Douglass by bumping him against them. It took keen judgment and a steady hand on the stick to get by them safely.

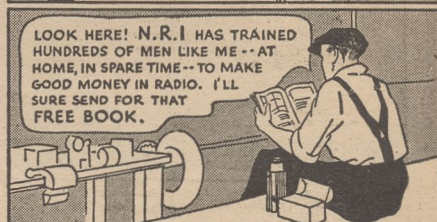
Douglass swung himself around until he was headed in the direction of flight, and lay as nearly horizontal as possible. When the plane was down to within about six feet of the water, Douglass slashed the rope. Like a stone out of a slingshot, he was hurled away from the plane. He hit the water on his back, head foremost, skipped once like a flat rock, and then sank. He soon bobbed up to the surface and started swimming. After a few strokes, his strength gave out, but fortunately one of the rescue party came alongside about that time and pulled him to safety.

Douglass was little the worse for his harrowing experience. Had any one of the actors in this thrilling life-and-death drama lost his head for a moment, Douglass would not be with us today. But that is the way our Air Corps carries on. Call it nerve, or flying temperament, or what you will, but it is the thing that enables such flyers as Jimmie Doolittle, Colonel Henry Arnold, and others to go on outguessing death year after year.

TWO soldiers making a parachute jump not long ago were called upon to exercise the greatest coolness and skill in extricating themselves from a tangle in a cloud.

It was out at Chanute Field, Illinois. Newsreel photographers had obtained permission to shoot movies of five parachutes descending into clouds and emerging from the bottom of the cloud bank. The jumpers boarded a transport and climbed up to 6,500 feet. Here the big ship leveled off, and the men crowd-

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ed around the doorway, waiting for the signal to bail out. Down below, cameramen trained their lenses on the clouds.

The wind was blowing a gale of fifty miles an hour. Sergeant Burval crouched for a moment before the exit, and then sprang out, turning somersaults as he fell. Sergeant Schneider waited an instant and then followed Burval over the side. Both soldiers cleared the ship, and their chutes opened normally. Their objective, a large fleecy cloud about 1,500 feet thick, was stretched out like an Arctic ice field a thousand feet below them.

Both men, carefully watching their direction, slipped their chutes toward the cloud. Just as Schneider was diving into the mist, he suddenly saw a pair of Army boots swing down and slap him in the face. In an instant, the high wind drove Burval and Schneider into an unwilling embrace, with the shroud lines of the two chutes wrapped about their bodies in a hopeless tangle. Schneider's chute became twisted in the multiple lines and collapsed on one side. He began to fall at high speed, dragging Burval along with him.

Then there was a crack like the report of a rifle. As the men gazed helplessly up at their silk canopies, they saw that the panels were ripping out of Schneider's chute, and this was making them fall still faster. The situation looked bad, but the men did not give up hope.

Falling through the soupy cloud bank, they began to work carefully and methodically to disengage themselves. Burval was jammed against Schneider's chute and was trussed up like an Egyptian mummy, but his deft fingers did a remarkable job of freeing himself. All the while, the chutes were oscillating violently and swinging the men back and forth against each other with stunning force.

Finally, Burval managed to disentangle himself and swing away. As he slipped clear, the two chutes suddenly oscillated and became once more bound together. The ground began to loom up just a short distance away. Once more the flyers worked to extricate themselves, and they parted company at almost zero altitude. Their chutes just had time to open, and in spite of Schneider's torn cloth, neither of the men was injured. Officers at Chanute Field believe that no two men were ever so tired of the sight of each other as were these soldiers before their perilous descent was over.

**PARACHUTE** jumpers sometimes come in for more than their share of thrills. A radio operator bailing out of a disabled plane suddenly felt himself yanked back by the head against the fuselage. After pushing himself clear several times, he realized that he had forgotten to remove his helmet, which had built-in headphones and was connected to the radio set. While being swung roughly about by the spinning ship as he dangled at the end of the radio cord, he unfastened his helmet. Then he kicked himself free and opened

his chute. He was safe.

At one time, Lieutenant Norme Frost tried to bail out of a pursuit plane in an upside-down spin and, when he grasped the safety-belt buckle, the centrifugal force throwing him outward against the belt was so great that his fingers became tightly wedged in the buckle. The faster the plane spun, the tighter his fingers became caught, and for a while it looked like "curtains" for the imperiled officer.

After a desperate struggle, however, he finally managed to brace himself and push his body down into the seat. This eased the pressure on the belt and released his fingers. He was then able to get the belt undone and leap out.

It took quick thinking on the part of an Army flyer in the Philippines not long ago to keep from mowing down a crowd of people when his engine conked at low altitude during an exhibition.

Lieutenant C. S. Irvine had flown from Clark Field to Manila in a high-speed Boeing pursuit plane with five other pilots to take part in the annual carnival of the Philippine Islands. Twisting, weaving, all but turning the little fighters inside out, the pilots cavorted about the sky, the brilliant tropical sunshine glinting on the highly doped surfaces of the wings. Down, down they rushed at the crowd. Then, with an ear-splitting roar, they pointed their noses straight at the sky and rocketed upward.

Suddenly one of the planes faltered. There was a cough, a sputter, and a long streamer of black greasy smoke trailed out in its wake. The engine picked up again for a second, then popped a few times and quit for good. The propeller stood straight up and down.

Irvine looked below him. There was a sea of upturned faces covering every foot of the ground. No place to land there, and his plane was losing altitude fast. He saw a stretch of sandy beach that he could reach, and glided towards it. As he came nearer, he saw that it was lined with people. He could probably get down, all right, but there was a chance that he might overshoot and hurt somebody, so he decided he wouldn't try. He headed for the open sea.

Bringing a pursuit land plane down on the water is always certain to mean a crack-up. Irvine came toward the surface at express-train speed. The landing gear struck a wave, and the plane bounced as high as a two-story building, then careened into a trough. With a geyser of spray, it whirled up on a wing and did a ground loop, then plowed its nose into the water and flipped over on its back, pinning Lieutenant Irvine in the submerged cockpit. Fortunately, the airman was not hurt, and he hurriedly unbuckled his safety belt and worked his way out of the plane. He came to the surface and swam safely ashore.

These escapes seem narrow, indeed, to us, but to the men whose daring stunts have helped to glorify the name of the Army Air Corps, they are only "part of the day's work."



## A Sea Hawk's View of the War Games

(Continued from page 10)

A flash of blue and white, the jerk of a yellow-clad arm, a rush of wind, a howl of power, blue ocean racing towards us. The deck drops away, and we are in the air. In a couple of minutes, we look back, and down, at the *Lexington*.

"What?" We rub our eyes to make sure that we aren't dreaming. "That toothpick floating on the vast Atlantic is the mighty *Lexington*?"

It can't be. But it is. And we have to land on that tiny sliver. Wh-e-e-w-w! It's a big ship, but a shoestring of a flying field! A feeling of respect for these sea-going aviators sweeps over us, and adds one more thrill to the war games.

Our defending fighters are Grummans; now they are all in the air. We draw into compact formation. We climb higher and higher. The *Lexington* gets smaller and smaller. The rest of the fleet shows as tiny, smoking dots, scattered across the blue floor of the ocean.

Two specks come out of the east. They grow larger by the second. They are part of the Sara's brood of sea hawks. They are enemy scouts!

They turn to run, their white tails flashing in the sun. Three of our 200-mile-an-hour Grummans cut away from the formation to shoot them down. The Sara's scouts are doomed—but that won't save the Lex from attack. The damage is done. Those enemy scouts have already radioed our position. This very second, on board the *Saratoga*, planes are swarming into the air. It won't be long now.

The two white-tails have been shot down. The three Grummans rejoin our formation. We circle at 17,000 feet, awaiting the attack.

Here they come! Red tails, white tails—dozens of them! They scream down out of the sun, and dive for the Lex under full power. They pay no more attention to the Grummans than as if they were not there. The attackers' mission is to dodge the defending airplanes, if possible.

They hope to destroy our carrier, or to cripple her flight deck so that we can't land. If they succeed, when our gas runs out, there is no place for us to land. Then we must fall into the ocean and drown. Nantucket is actually there, but in theory, this war game is far out at sea. There is no place to land but our carrier; and if it sinks, we perish.

Small wonder that the Sara's hawks pass up an air flight. What could a few individual victories mean in comparison with wiping us all out of existence at one fell swoop?

But the Lex isn't sunk yet—not by a jugful—and she won't be if we can help it. Fighting yellow-tails to the rescue! Wires scream, motors thunder—200 miles an hour, 250, 300. Fast and faster, hard on the tails of the hawks, roar the Grummans.



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Ear-splitting din of a thousand hurricanes, pile-driver pressure of air against our eardrums! We are catching them. Grummans to the rescue!

Straight down on the red and white tails . . . we are running over them. They scatter to the four winds. At eight thousand feet, the attack is broken. The hawks are disbursed, driven off before they can inflict any damage. The *Lexington* is safe. The Grummans have saved the day.

Far below, on the bridge of the Lex, a heliograph winks in the sun. The war is over for today. We circle the carrier and await our turn to land.

A shadow flicks across the *Lexington's* fan-tail. A returning scout drops from the air, and is snagged up short in the arresting-gear. Efficient hands rush the plane clear of the landing area on the stern. They guide the wing tips as the pilot taxis forward to his position on the bow. Before he gets into place, another plane has landed. Twenty seconds, and another.

We can watch all the details from the air. We have a perfect grand-stand seat. The handling of those landing airplanes requires clocklike precision, and marvelous coordination. Twenty seconds—here's another.

Now it's our turn. Close to the water, we circle astern of the speeding *Lexington*; we hover over her boiling wake. With throttled motor, we creep closer to that narrow toothpick of deck.

On a platform at the port side of the tail, a signal officer extends two flags at arm's length. Now comes the supreme test of a sea-going aviator.

Our pilot has spent years in learning to judge distances in landing; it's second nature with him. But in landing on a carrier, he has to ignore his own judgment entirely. He judges nothing for himself; he takes orders from that signal officer. He obeys orders from that signal bridge—obeys them blindly, even though his own judgment may be screaming in his ears that the orders are wrong, and that obedience will tumble him into that churning welter of white foam behind the carrier. And that means almost certain death!

The signal officer raises his flags. Our approach is too high. We drop lower. The flags return to the horizontal; now we are coming in correctly. We slide across the fan-tail. Down chops one of the signal flags, and on the instant, our pilot cuts his motor. We slump onto the deck with a gentle jolt. The arresting gear snubs us up short.

We are home again on the good old *Lexington*. Some ship!

See the  
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on page 74

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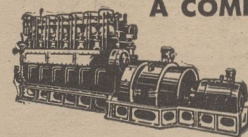
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## Happy Landings

(Continued from page 26)

missile, fired from the regular rifle or machine gun, which pierces half-inch armor plate as easily as it does tissue paper. Britain has a new shell that has no dread of any armor plate. The Italians boast a silent cannon that gives out no noise, no smoke and no flash.

The latest is the report that a shell fired out of Germany fell in a garden of the royal palace in Oslo, 625 miles away. The German ambassador, who was attending a christening there, respectfully asked that the shell be turned over to him for return to Germany. Strange to relate, he got away with it, and Germany tried to hush the news. The more recent reports on this have it that the shell was fired by mistake during an experiment. It is handled in the form of a rocket shell directed by a clockwork fuse and highly compressible gas, which fires off the projectile several times after the initial start.

But the inventions that will affect aviation do not all run to gunnery. The new infra-red plates and cameras being used in the United States and England seem to be able to detect any form of ground camouflage, and there will be no secrets from the prying eyes of these mysterious devices. The infra-red plate pierces fog and picks out real foliage from camouflage; owing to the fact that trees, foliage and real grass reflect a great deal of the infra-red rays, whereas painted scenery does not. Thus, the natural greens surrounding a camouflaged object would stand out from the paint and canvas used in the camouflage screen. So far, the only drawback to the use of the infra-red plates is that they are much slower than ordinary plates.

Even little Switzerland is in the game with a new quick-fire rifle that is remarkable for its amazing lightness. It has no recoil, an astonishingly high rate of fire and penetrative and explosive power. It can be carried and operated by two men, can be used on the ground, in the air or mounted on surface vessels. It has a calibre of .78 inches, weighs 123 lbs., a range of three miles and a vertical range of 10,500 feet. Including the time taken to change magazines, the theoretical rate of fire is 120 rounds per minute. The force of the recoil is completely absorbed in reloading, and the rifle can be fired from the shoulder with no shock to the operator.

Several types of ammunition are provided. For instance, against submarines, torpedo boats and lightly armored ships, they use a special steel projectile which will penetrate Krupp one-inch armor at 650 yards and 1½-inch plating at 350 yards.

Another type of shell used contains a secret explosive which in trials appeared to be much more powerful than T.N.T. A third pattern is loaded with a mixture of high explosive and incendiary compounds which, on detonating, blows the target to smithereens and

sets fire to the whole lot. T. nice for the lads who fight in blue sky. We might add that of these guns have been sold be mounted on their sub-chaplanes.

Where will it all end? They go to work developing light-weapons to withstand the new for gunfire. The camera business will be blocked with camouflage that not be detected by infra-red rays. Silenced engines will mean that detector lads will go to work and develop more delicate microphones to cut the tiny sounds made by ship glides from great heights.

### CATAPULTS AND SLOTS

WHILE we are on this subject, might reflect on the business even one seems to be engaged in to make ships take off and land on a dime. have been going through a stage weird autogiros flying on nothing but rotors, slots and flaps for quicker take-offs and slower landings. In the meantime, it is interesting to note that Germany and Great Britain have been tackling these problems.

We have heard a little about the German plan to run an air fleet across the South Atlantic from Africa to South America by using Dorniers which, after landing near depot ships, will be taken aboard, serviced and shot off again from a new Heinkel catapult. This will be 103 feet long, can handle ships weighing up to fourteen tons, and give them a heave of 93 miles an hour. This, of course, is to allow the ship to take off, no matter what the surface of the water has to offer.

The new depot ship *Schwabenland* also carries a *Stausegel*, or trailing apron, for taking on ships in bad weather. I have written about this device before, and you will recall that it is a long mat of canvas and rattan which is towed across the surface of the water for the seaplane to land on when the water is too rough for safe landings. Then the machine is quickly hoisted aboard and deposited on the cradle of the catapult.

At the same time, Britain is experimenting with a giant catapult which handles great bombers of the Vickers type on the ground. The details of the only one published, so far as we can see, in a German aero weekly, seem to consist of two rails, over which runs a cradle built to take the undercarriage of a big bomber. This is shot into the wind by compressed air delivered to a cylinder from great metal containers set up at the rear of the catapult.

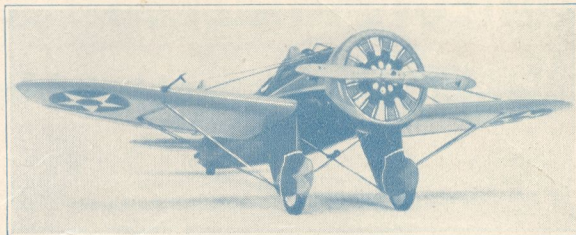
According to the excellent photographs displayed, the Vickers was hurled off and into the air in about one fifth the space it would require under ordinary take-off conditions. What it's all about is something of a mystery, but it appears useful.

Where do we go from here?

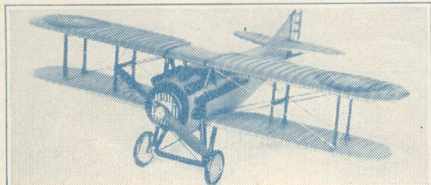


## "FAMOUS PLANES IN MINIATURE FORM"

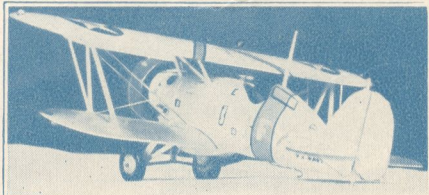
NIEUPOORT XVII



BOEING P26A



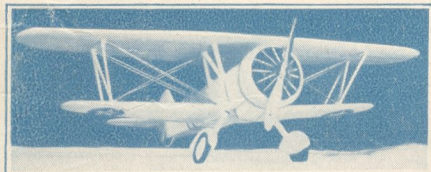
SPAD XIII



BOEING F4B3



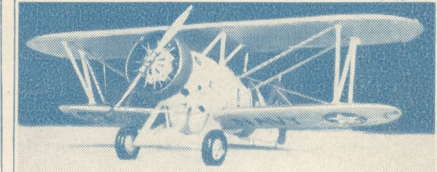
SOPWITH CAMEL



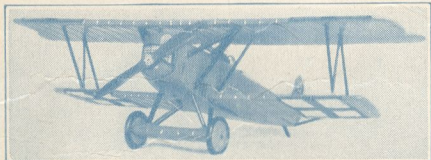
CURTISS GOSHAWK



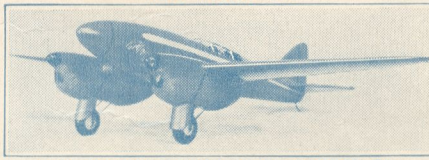
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**This Does Not Include DeH "Comet"**

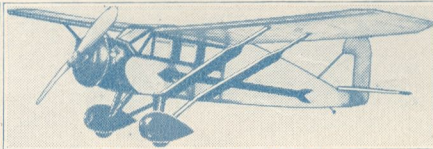
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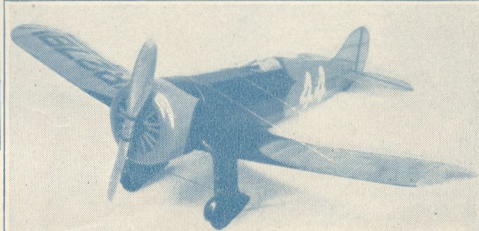
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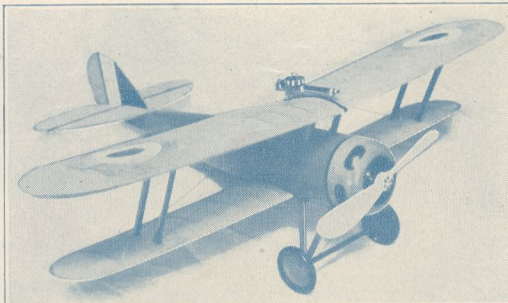


-NIEUPORT 28

The kit for this most beautiful of all War Planes contains die cut ribs and formers (which greatly simplifies construction), large bottles of dope and cement, colored lacquers, extra fine colored tissues, insignias, grade A rubber, smooth highest quality balsa, brass propeller bearings, wheel bearings, and everything needed to construct these perfect 13-inch flying scale models. "Scale  $\frac{1}{2}$ " to 1 foot.

50 cents each

NOTE. All pictures on this page are photographs of actual models.



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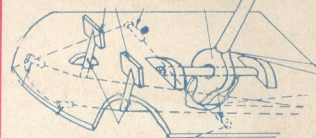


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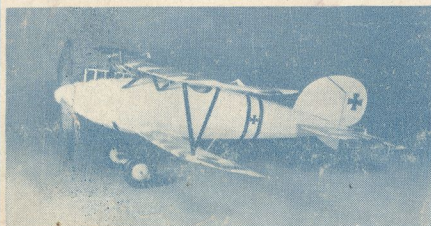
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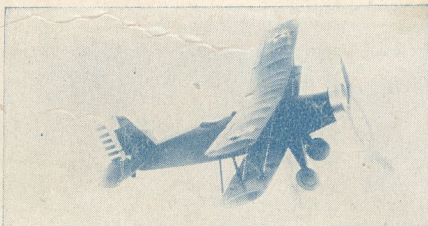


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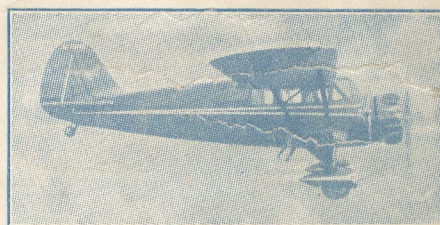
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50c  
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HEATH PARASOL



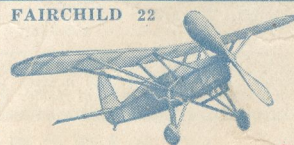
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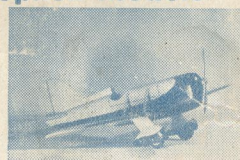
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